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AUGUST 21, 1926.

Vol. CV.

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ASPIRGRAN

A granular form of pure ASPIRIN
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LIMITED
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The most popular series on the market.

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GOUT AND RHEUMATIC
GREGORY. HAMILTON'S
HEAD AND STOMACH
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STEEL AND PENNYROYAL
VEGETABLE LIVER

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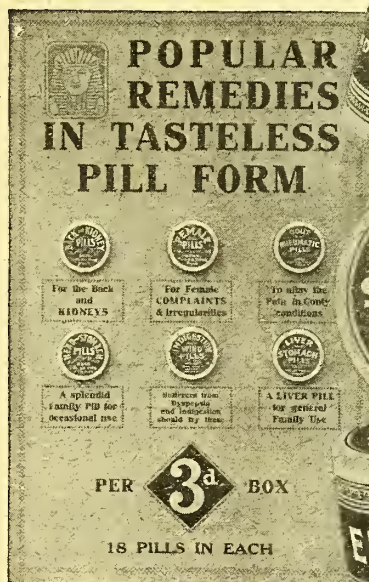
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Per gross



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DIGESTIVE FERMENTS.
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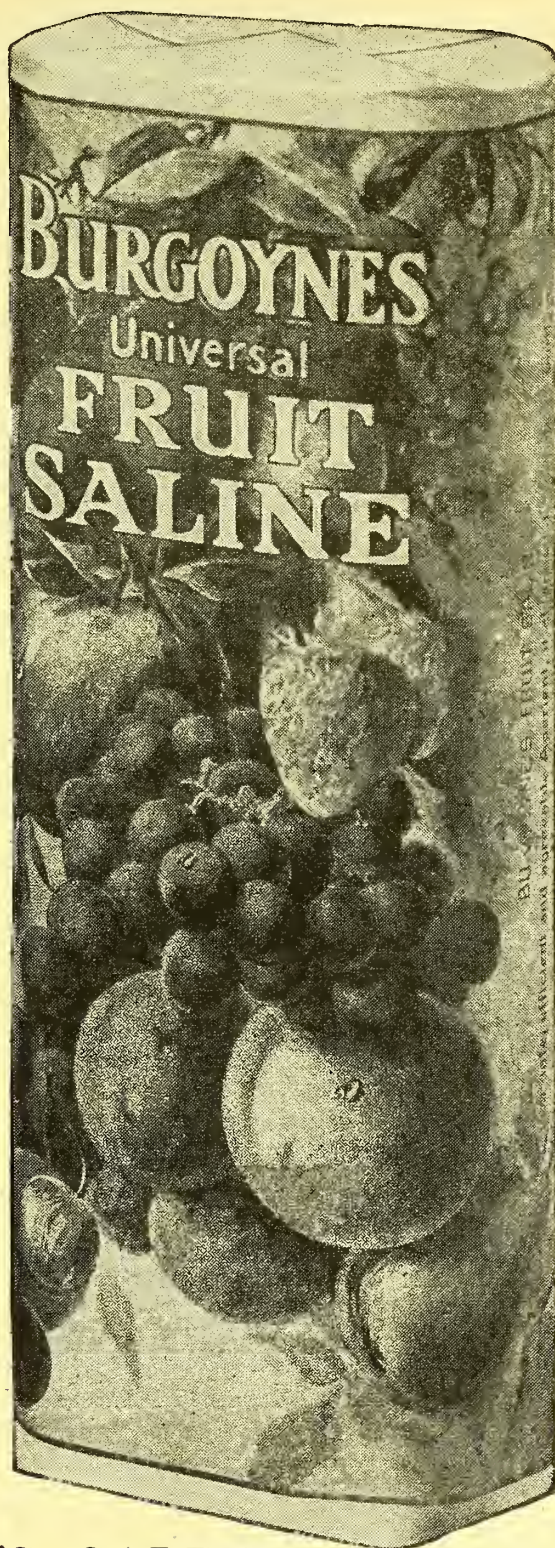
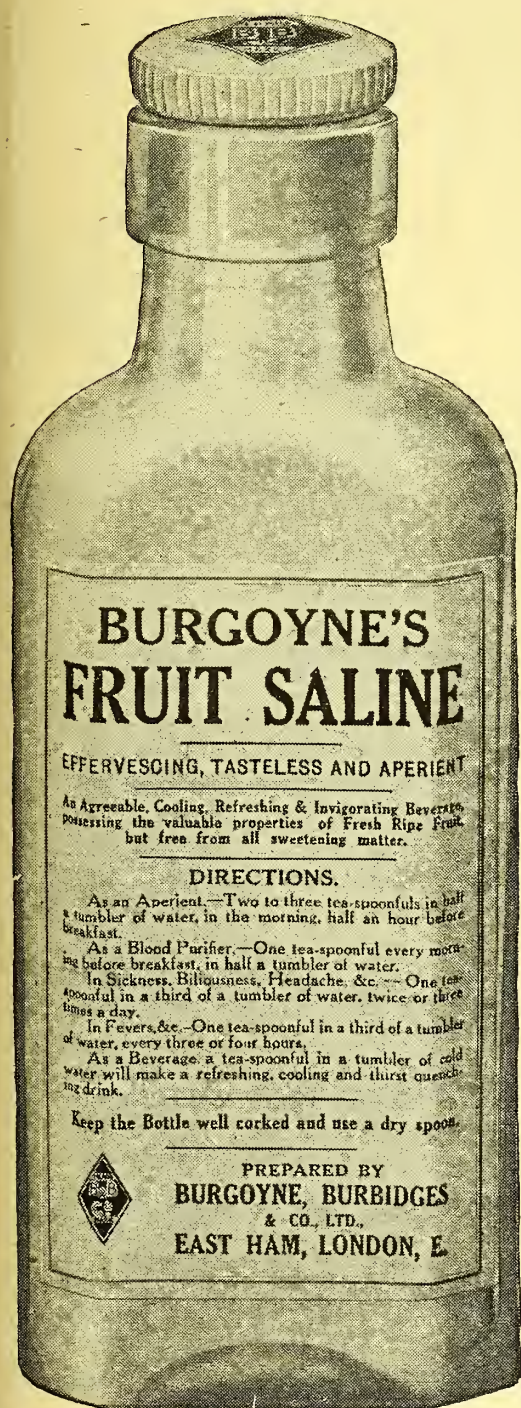
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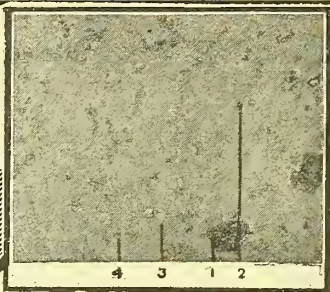
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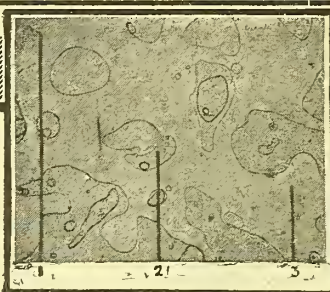


BURGOYNE'S SALINE

HIGHEST QUALITY : LOWEST PRICE : GROWING DEMAND



Micro-photograph of stool after Petrolagar administration, showing complete emulsification and thorough admixture with intestinal content.
(1) Epithelial Cells (2) Microscopic Oil Globule (3) Agar-Agar Granule (4) Faeces



Micro-photograph of faeces after administration of plain mineral oil, showing complete absence of emulsification; this explains why mineral oil always leaks.
(1) Epithelial Cells (2) Oil Globule (3) Faeces

Petrolagar

(DESHELL)

FOR CONSTIPATION.

THE micro-photographs clearly demonstrate the superiority of Petrolagar over ordinary liquid paraffin in the treatment of constipation. On the left the perfect admixture with the intestinal content obtained with Petrolagar is apparent; the other photograph, in which large unemulsified globules of oil are present, explains at a glance why plain mineral oil never has solved and never can solve the problem of constipation. It also shows why mineral oil leaks.

The drawbacks inseparable from the use of plain liquid medicinal paraffin are well known. Many patients cannot tolerate its insipidity; digestive disturbances sometimes occur; whilst thorough admixture with the intestinal content is seldom attained, with consequent leakage from the rectum.

Petrolagar contains 65% of purest mineral oil with an Agar emulsifying agent, prepared from 1½% anhydrous agar, forming a perfectly stable, homogeneous and highly palatable emulsion.

There is no taste of oil, so that the most fastidious patients take the product readily. In the treatment of chronic constipation, Petrolagar gives results unobtainable by any other method and breaks the vicious circle set up by the habitual use of drastic purgatives. The medicinal paraffin is so finely divided that it is thoroughly disseminated throughout the faecal mass, thus leakage is almost entirely eliminated; the agar-agar is specially prepared so as to yield on incubation in the intestinal tract many times its original bulk, forming a bland gelatinous mass which is completely and readily eliminated, acting, indeed, as a soothing emollient to the inflamed intestinal mucosa.

As contrasted with cathartics, Petrolagar is non-habit forming, and once normal elimination has been restored may be given in diminishing quantity.

Issued in Pound and Half-pound sizes as follows:—

PLAIN (No. 1)

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Every FLYSAC and VIPER that crosses your counter gives some customer new reason for preferring your goods, your service and your establishment.

Order from your Wholesaler, or write for carriage paid prices to the Sole Manufacturers :



Ingenious, unobtrusive and extremely rapid in action.

Boxes of 36.



For the customer who likes a big pennyworth. Three widths. 2", 3" & 4".

Boxes of 36.

Buy KAY'S
It pays

KAY BROTHERS Ltd.
Manufacturing Chemists - STOCKPORT

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Jaytee's HUILE d'OLIVE

**FINEST
QUALITY**

**GUARANTEED
PURE**



**SPECIALLY
FOR MEDICINAL USE ALSO SALADS Etc.
PREPARED**

JAYTEE'S PURE OLIVE OIL

Huile d'Olive de Provence

**Specially prepared for
Salads & Medicinal use**

IN REPUTED $\frac{1}{2}$, $\frac{1}{4}$, AND 1 PINTS.
AND IN 1 QUART.

We can offer attractive style
in "Own Name" label.

*The showstand sent gratis
to all our Customers.
Send a post card to-day.*

John Thompson ^(Wholesale Druggists 1921)
Ltd. - LIVERPOOL

Phone: Royal 1434. Wires: "Drugs, L'pool."

**You are often told of a
good time to come . . .
*We tell you here of a good time now.***

More than twenty-five thousand packets of our popular
**MOORLAND HEART SHAPE INDIGESTION
TABLETS** are sold every week.

Each packet contains sufficient tablets to last for from two
to six weeks—which means that over one hundred thousand
people are regular customers for this popular line.

The fact that they *are* regular customers testifies to the
excellence of this tablet as a remedy, and amply demonstrates
its real business building properties in the only worth while way
—A **SATISFACTORY PRODUCT, PROFITABLY
SOLD TO SATISFIED CUSTOMERS.**

Write at once for our advantageous buying terms for this line,
and help yourself to **THE GOOD TIME THAT IS
HERE** in the form of this real, business building brick.

W. B. CARTWRIGHT LTD.

Rawdon near Leeds

A carefully planned investigation in one of England's largest towns shows why Ipana sales are soaring up

Special Display Terms

We offer you three parcels on these special terms! On parcel Number 1 you will make 74% on your original investment—69% on Number 2 and 65% on Number 3.

PARCEL No. 1

(6 dozen tubes at a discount of 10% for window display)

The public pays you £5 8s. 0d.
You pay us . . . £3 2s. 1d.
Your profit is . . . £2 5s. 11d.
or 74% on your investment

PARCEL No. 2

(3 dozen tubes at a discount of 7½% for window display)

The public pays you £2 14s. 0d.
You pay us . . . £1 11s. 11d.
Your profit is . . . £1 2s. 1d.
or 69% on your investment


PARCEL No. 3

(1 dozen tubes at a discount of 5% for window display)

The public pays you £0 18s. 0d.
You pay us . . . £0 10s. 11d.
Your profit is . . . £0 7s. 1d.
or 65% on your investment

The regular price of Ipana to you is 11/6 a dozen. Six dozen would ordinarily cost you £3 9s. 0d.; three dozen £1 14s. 6d.

With this display material you can sell more and more tubes of Ipana—and with our special display terms you get more profit on each tube

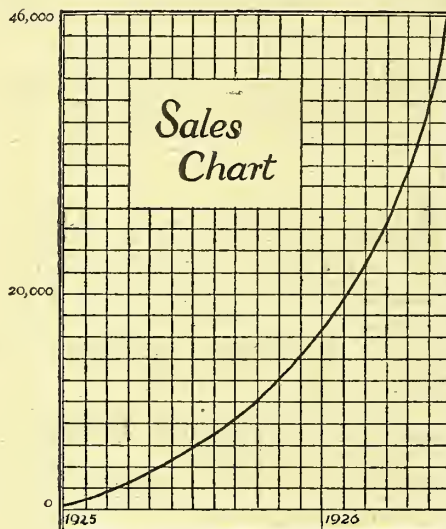


Teeth cannot be sound if gums are weak

IPANA

IPANA

Not only cleans the teeth, but also stimulates the gums



This curve shows just the average rate at which Ipana sales are increasing all over the country

EVERY day more people are trying Ipana—and of those who buy it, over 87% mean to have it again.

This figure—and others quite as interesting—was recently discovered when we examined the effect of Ipana advertising on the general public.

We also found that, in spite of the large number of people who take samples just because they are free, one in every four who had sampled Ipana had already bought a regular tube at their chemist's.

And we found out why people are taking to Ipana!

When we asked what were the chief qualities people looked for in any tooth paste easily the most frequent answers were "good cleaning power" and "pleasant flavour." When we asked what people liked in Ipana, over 86% gave one or other of these two answers, while many of them recognised as well the beneficial effect of Ipana on the gums.

Let people know you stock Ipana—keep it displayed. And don't risk running short—order today from us or from your regular P.A.T.A. wholesaler. And send for the fresh, original show material that we have ready for you. Bristol-Myers Company, 112, Cheapside, London.

IPANA

Tooth Paste

Genoxide

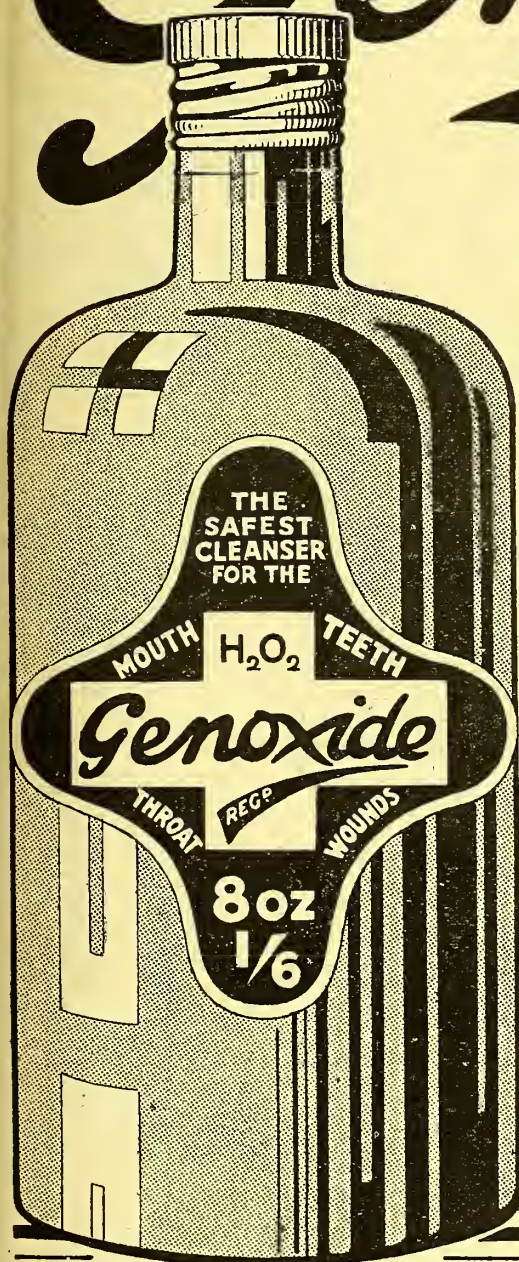
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THE NEW PEROXIDE

Exceptional Stability
and Purity

NO RISK IN STORAGE

Patented Safety Screw Caps



Three Sizes Popular Prices

		PUBLIC PRICE	COST PRICE
4 oz.	- 1/-	at 9/-	per doz.
8 oz.	- 1/6	at 13/6	„
16 oz.	- 2/6	at 22/6	„

Orders equivalent to three dozen 4 oz. less 2½%

Orders equivalent to one gross 4 oz. less 5%

Terms Cash in 30 days net. Minimum One Dozen Lots.

COUNTER STANDS SUPPLIED.

SPECIAL TERMS TO WHOLESALERS.

GENOXIDE LTD - LUTON

TOILET ARTICLES

IN HALL-MARKED SILVER AND E.P.N.S.

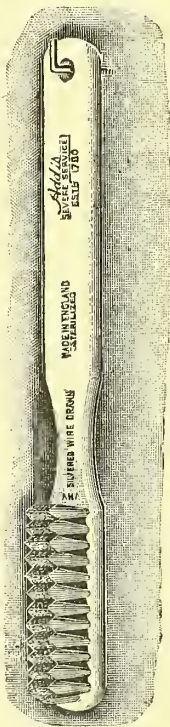


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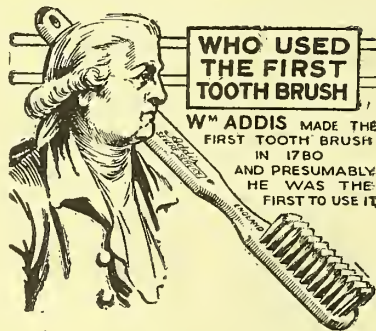
23, 24, 25, 26 GREAT HAMPTON STREET, BIRMINGHAM.

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Made in Very Hard
Unbleached Bristle
for "Severe Service"



WHO USED
THE FIRST
TOOTH BRUSH
W^M ADDIS MADE THE
FIRST TOOTH BRUSH
IN 1780
AND PRESUMABLY
HE WAS THE
FIRST TO USE IT

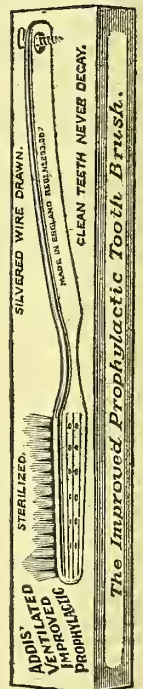
Every *Addis Prophylactic* and "SEVERE SERVICE"
tooth brush box bears the following copyright wording:

*Manufactured in England and guaranteed by the oldest firm
of tooth brush manufacturers in the world.*

When you offer your customer one of these he knows you are offering the best obtainable, not just selling for profit. At the same time ADDIS brushes give the regulation profit, a full guarantee and confidence to the customer to purchase other goods from you.

ADDIS BRUSH WORKS

HERTFORD, ENGLAND.



Made in
Very Hard
Hard
Medium
or Soft if required.

Maw's



Page

Before you order Hot Water Bottles.

Take a "Parex" hot water bottle in your hand. Feel the weight of it. Examine the reinforced seams, the washerless neck, and the convenient, captive stopper. Think how easy it would be to sell even the most particular customer a "Parex" bottle, and the satisfaction both you and he would have from the transaction.

Now imagine a display of "Parex" bottles in your pharmacy window or on your counter. How the bottle in its smartly decorated, protective envelope would compel the attention of your customers. Every bottle its own showcard! Think of the effect of the background screen, the price card and the counter leaflet, all in the same scheme. How many extra sales would they help you to make? The more you think about it the more you will realise that the "Parex" bottle is unquestionably the most profitable hot water bottle for the pharmacist, profitable from two points of view: immediate returns and repeat business.

And, in addition to profits, when you put your efforts into selling the "Parex" bottle, there is the satisfaction of knowing you are building business for yourself and for pharmacy, for a "Parex" bottle can only be bought from a pharmacist.

PRICES OF "PAREX" GUARANTEED HOT-WATER BOTTLES.

Size.	Price.	Size.	Price.
6×8	3/8	8×14	5/6
6×10	4/-	10×12	5/9
7×12	4/9	10×14	6/6
8×10	4/7	12×14	7/3
8×12	5/1		

"PAREX" SUPER RED.

Size.	Price.	Size.	Price.
8×10	5/-	10×12	6/6
8×12	5/9	10×14	7/6
8×14	6/6		

All the "Parex" display material is sent free with orders to the value of £5 and upwards. Send your order to-day!

S. Maw, Son & Sons, Ltd.,
Aldersgate St., London,
and Barnet.





THE MAINTENANCE OF TURNOVER DURING AUGUST

of a good product which usually reaches the zenith of its sales in February, is not so difficult as it might seem at first. In the case of

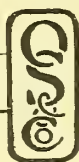
Roboleine

THE FOOD THAT BUILDS THE BODY

you have continuous advertising throughout the summer in the great national dailies and in the high class weeklies. Link up with our efforts to increase Roboleine sales, and you will find that not only will every jar you sell yield you a fair profit, but also it will enhance your reputation as a bona-fide, qualified pharmacist, and also gain you the goodwill of your customers.

OPPENHEIMER, SON & COMPANY LTD.
179 Queen Victoria Street, London E.C. 4.

O & S



PROTECTED PRICES

CHATELAIN'S REMEDIES

Are now on the P.A.T.A.

URODONAL

JUBOL

GLOBEOL

PAGEOL

etc., etc.

HEPPELLS Ltd. are the **SOLE CONCESSION-NAIRES** for all these products. Consequently the importation from abroad by other firms of these specialties, or their distribution in packages not bearing the label of **HEPPELLS Ltd.**, constitute an infringement of the rights of the Company.

It is the intention of

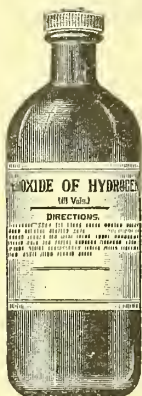
HEPPELLS Ltd.

in the interests of all concerned, to proceed against any persons or firms who infringe their rights as Sole Concessionnaires, and have placed all Chatelain's preparations on the P.A.T.A. and are determined to help the retail chemists in every way to promote sales.

HEPPELLS Ltd.

164 PICCADILLY, LONDON, W.1

TOOGOOD'S PACKED COUNTER SPECIALITIES



Peroxide of Hydrogen

Packed in the bottle that will not leak.

No. 3552.

		4-oz.	8-oz.	16-oz.	
10 Vol.	- -	6/-	8/-	13/-	dozen
20 "	- -	7/-	10/-	17/-	"

Customer's name free on 3 dozen assorted.



Liquid Paraffin B.P.

FOR INTERNAL USE.

PACKED IN WHITE FLINT FLATS.

4-oz.	6-oz.	8-oz.	10-oz.	12-oz.	16-oz.	20-oz.	
6/10	8/3	10/-	11/9	13/-	17/-	21/-	doz.

Customer's name free on 3 dozen assorted.



British Lysol

4-oz.	8-oz.	16-oz.	32-oz.	
6/-	10/6	18/-	27/-	dozen
	1-gallon	1 gallon		
	48/-	78/-		dozen

Apply for Special Terms for Contract Orders.

MANUFACTURED BY

WILLIAM TOOGOOD LTD.

77 SOUTHWARK STREET, LONDON, S.E.1

Selling briskly now for HAY FEVER



DISPELLO CATARRH SNUFF sells freely all the year round. Just now when Hay Fever claims many victims it is beginning its boom and sales are rapidly rising. Come October we shall be claiming record sales, but we know these will again be beaten in the 'peak' months of January and February.

As a professional man

look at the formula and you will understand why the public recommend DISPELLO to their friends.

WINDOW DISPLAY FREE WITH ONE GROSS.

Per dozen	...	...	...	4/6
Per gross	...	...	...	48/-

Samples sent on request.

Special Packings for Export.

Prices on application.

AYRTONS
for Packed Goods
LIVERPOOL



BEHIND *this* CORK

THERE is, behind this Cork—and all Armstrong Corks—a proud reputation built up by 65 years of honest trading.

Armstrong Corks are guaranteed corks. They are always up to sample—always up to standard. You *know* what you are going to get when you re-order. They are graded (A), (B), and XXX, XX and X. There is a grade and a price for every need. Buy the Corks which are backed by a reputation and a guarantee.

— Write TO-DAY for —
Samples and Quotations.

ARMSTRONG CORK CO. LTD.

306 Sardinia House
KINGSWAY
LONDON
W.C.2

SELL EMPIRE PRODUCTS

NEW AND REGULAR CUSTOM IS BEING
CREATED DAILY BY OFFERING



CIGARETTES & TOBACCO

Made from the finest leaf grown
in NYASALAND on the planta-
tions of The BRITISH CENTRAL
AFRICA CO. LTD.

Head Office:

Thames House, Queen Street Place, London, E.C.4.

We wish you to TRY THESE, and shall be
pleased to send you FREE SAMPLES, also
particulars.

PRICES ARE MODERATE and the QUALITY
and SIZE COMPARE FAVOURABLY with
BRANDS COSTING NEARLY DOUBLE.

Sole Distributors for the Chemist Trade:

THOS. CHRISTY & Co.

4/12 Old Swan Lane, London, E.C.4.

Rebuilt NATIONAL CASH REGISTERS



Opportunities for Retailers

We often take back used
Cash Registers when
customers are installing
larger or more up-to-
date machines. These
National Cash Registers

Thoroughly Overhauled and Rebuilt

are sold under the
Company's full guarantee
at reduced prices.

Write for details of "Nationals" available:—

Dept. R.1. The National Cash Register Co. Ltd.,
225, Tottenham Court Rd., London, W.1.

"THE CHEMISTS' OWN"



MINERAL SPRING EFFERVESCENT HEALTH GRANULES

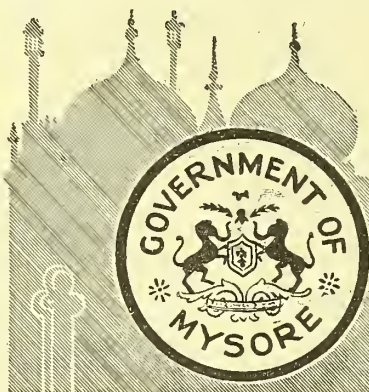
"MINERAL SPRING" is the Chemists' Own Effervescible and is not supplied to the grocery or allied trades. The Chemist who specialises in "Mineral Spring" therefore protects himself against unprofessional competition as far as salines are concerned. Every sale builds up his *own* goodwill in addition to yielding a substantial immediate profit (33% to 40% on selling price)

Retail Prices (P.A.T.A.) 1/- and 2/-. Trade 8/- and 16/- doz. Reduction on 1 gross.

THOMAS KERFOOT & CO LTD
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, N.1
ESTABLISHED 1797.

B/466

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*Mysore Government Seal
is your guarantee that
the Oil is the finest in
the World*

EAST INDIAN SANDALWOOD OIL

Sole European Distributors:

ESSENFLOUR PRODUCTS LTD.

"Perfume House" 6, 7 & 8 BEAUCHAMP STREET, LONDON, E.C.1

Telephone: HOLBORN 2499, 6214, 6215 (3 lines).

Telegrams: "EKDUM, LONDON."

CHEMICAL WORKS "FLORA"

DUBENDORF, ZURICH - SWITZERLAND.

Manufacturers of

ARTIFICIAL MUSKS

100%

AMBRETTE KETONE XYLOL

The "Flora" Musks are the essence of perfection, and striking examples of a factory with a large reputation for quality.

LONDON STOCKS

Samples and Prices from—

CHAS. ZIMMERMANN & CO. (Chemicals), LTD.
33 St. Mary-at-Hill, London, E.C.3

ANILINE DYES PHOTOGRAPHIC CHEMICALS

LIQUORICE (BLOCK and STICKS)

GENERAL CHEMICALS

We Specialise in Highest Quality.

Distributors in England for

FRIES BROS.' renowned ESSENCES
(PEACH, APRICOT, Etc.)

Also for the HIGH CLASS

Melba Toilet Preparations

A. CONNELL & CO., Melba House,
WENLOCK ROAD, CITY ROAD, LONDON, N.1
Phone: Clerkenwell 7266. Tele.: "Nitrozone, Nordo, London."

THE STANDARD

D & O

OF QUALITY

BRAND

AMERICAN ESSENTIAL OILS

GENUINE AMERICAN PEPPERMINT OIL

*Natural: finest single distilled. Prismentha: re-distilled.
Supermentha: rectified.*

OILS OF NUTMEG, COPAIBA, SASSAFRAS,
CEDARWOOD, SPEARMINT, WORMSEED.
BALSAM: PERU, COPAIBA, TOLU.

Dodge & Olcott Co.
20 Mark Lane, London, E.C. 3.

'Phone: Royal 3102/3. Wires: "Egdarf, Fen, London."

Head Office: 87 Fulton St., New York.

Established 1795.

LAUTIER FILS

Works: GRASSE (France) & BEYRUT (Syria).

Essential Oils—Synthetics.
All Raw Materials for Perfumery.

Absinth	Laurel
Almond, bitter,	Lavender
Angelica [S.A.P.]	Lemon
Basil	Mace
Bay	Mellissa
Bergamot	Neroli big and Syn.
Bols de Rose femelle	Orange
Cajuput	Otto de Rose
Caraway	Patchouli
Cinnamon	Peppermint
Cloves	Rosemary
Copalba	Rue
Costus	Sandalwood
Cubeb	Spilke Lavender
Fennel	Tansy
Geranium	Tarragon
Honey	Thyme
Hyssop	Vetivert

Olive, Peach Kernel, Sweet Almond Oils
Floral Waters.

Wholesale and Export only.

LAUTIER FILS, Ltd., 4 Denman St., London Bdg., S.E. 1
Tel. Add.: "LAUTIER, PHONE, LONDON." Telephone: HOP 2819.

TRADE



MARK

AN ALL-THE-YEAR-ROUND SELLER

For summer's sun
and winter's wind,

Spurway's LEMON CREAM

For the Hands

A non-greasy cream which has a wonderful effect in softening and whitening the skin, and in preventing excessive perspiration.

It is exquisitely perfumed and leaves a delightful after-aroma on the hands.

Sent out in dainty 4-oz. frosted bottles, fitted with glass-top corks covered with transparent viscose caps and artistically labelled.

Handsome show-cards sent with each consignment.

PRICES—

1 doz. lots 12/- per doz.
3 doz. lots 11/- „

SPURWAY ET CIE, LTD.

89 Great Eastern Street,
LONDON :: :: E.C.2.

CANNES-GRASSE, RIVIERA.
PARIS.

LEIPSIC NEW YORK
KINGSTON (ONTARIO)

Telegrams - "NEROLI, LONDON."
Telephone - BISHOPSGATE 1372.

DEARBORN (1923) LTD.

37 Gray's Inn Road, London, W.C.1

Toilet Specialties.

	Price per doz. to Retailer	Selling Price P.A.T.A.
PILENTA SOAP ..	10/-	1/-
A complexion soap.		
PROLACTUM ..	10/-	1/-
For the lips.		
PARSIDIUM JELLY ..	10/-	1/-
For wrinkles.		
ALLACITE OF ORANGE BLOSSOM ..	22/6	2/6
A dressing cream.		
BORANIUM ..	22/6	2/6
A hair tonic.		
CLEMINITE ..	22/6	2/6
For a face lotion.		
COLLIANDUM ..	22/6	2/6
For a face tint.		
PERGOL ..	22/6	2/6
A deodorant.		
TEKKO PASTE ..	22/6	2/6
Camphor cream.		
STALLAX ..	{ 13/6 22/6	1/6 2/6
For a shampoo.		
JETTALINE ..	31/6	3/6
For clearing the skin.		
PHEMINOL ..	36/-	4/-
A depilatory.		
MENNALINE ..	36/-	4/-
For the eyelashes.		
MERCOLIZED WAX ..	{ 18/- 31/6	2/- 3/6
A face cream.		
STYMOL ..	36/-	4/-
For oily complexions and blackheads.		
SILMERINE ..	22/6	2/6
Hair-curling fluid.		
BARSYDE ..	22/6	2/6
Dandruff eradicator.		
TAMMALITE ..	22/6	2/6
For grey and faded hair.		
LIQUID PERGOL ..	31/6	3/6
To check excessive perspiration locally.		
BICROLIUM ..	22/6	2/6
For whitening the hands.		
COCONOIDS ..	31/6	3/6
For figure development.		

The Products of

Messrs. PARKER, BELMONT & CO.

CLYNOL BERRIES ..	{ 36/- 58/6	4/- 6/6
For obesity.		
SOFT PALERIUM ..	45/-	5/-
For wrinkles.		
LIQUID NAIL POLISH ..	10/-	1/-
Brilliant and lasting.		

Stocked by ALL Wholesale Houses.

COLONIAL DEPÔTS AND AGENCIES.

Australia: ALL WHOLESALE, & DEARBORN (Australia), Ltd., Grace House, Clarence Street, Sydney.
 South Africa: LENNON, Ltd., Cape Town, etc.
 SIVE BROS. & KARNOVSKY, Johannesburg.
 India: FRAMJEE & SON, Bombay.
 A. L. CHOUDRY, Calcutta.
 New Zealand: SHARLAND & CO., Auckland and Wellington.
 South America: DEARBORN (South America) Ltd., Calle Payon 200, Buenos Aires.
 Straits Settlements & Federated Malay States: MEDICAL HALL, Ltd., Singapore.



Has your wife had our
FREE GIFT PARCEL?

If not, send post
card to-day.

Florian & Armand, Ltd.

Queensway, Ponders End, Middlesex.

REPRESENTATIVE

The German Manufacturer of High-Class
Perfumes and Toilet Soaps

GUSTAV LOHSE A.-G., BERLIN
Established 1831

wants to be represented for the United
Kingdom by first-class well-introduced
representative. Apply to

GUSTAV LOHSE A.-G., TELTOW-BERLIN

Offer this

When customers ask for a colour-
restorer for grey hair, or a tonic to stop
falling or to promote growth, offer

MORGAN'S POMADE

You may do so in full confidence that it
will perform what it promises. 35 years'
reputation, a world-wide trade, and
thousands of testimonials support its claims to genuine merit.
Retail 1/9 and 3/3 per pot; Wholesale 14/- and 26/- per doz.

**Increase your Sales by Displaying a Framed
Showcard. Limited Supply held. Send
Trade Card for same at once.**

THE MARIE ANTOINETTE CO. 149 JUNCTION ROAD
LONDON, E.19

(Note New Address)

(1)



You will be asked for—

POWDERED CEROLIN RETAIL 2/-

For making Face Cream

LAITINE POWDER 1/6

Face Powder. 3 shades

BENZONE CRYSTALS 1/6

For Blackheads

CHLORONE PELLETS 1/-

For Halitosis

CITRATE OF CAPROL 3/-

For the Hair

PERU PASTE 2/-

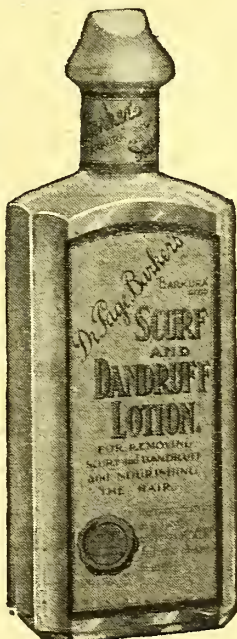
For Wrinkles

NYR-VAH-NAR
The New Perfum: 3/- 5/- 10/-

They bear big profits. Order through your wholesaler. Made by The Butywave Co.,
10 Tachbrook Street, S.W.1

Dr. Page-Barker's Scurf Lotion

THE specific recognised throughout the Trade as the one genuine and reliable remover of Scurf and Dandruff. Every bottle carries a guarantee. 18/- per dozen, retail at 2/6. With an order of three dozen you get a free bonus of three 2/6 bottles, also an attractive showstand. Smart show matter. Leaflets with your own name.



THOS. CHRISTY
& CO.

4, Old Swan Lane,
Upper Thames St.,
E.C.4.

The World Famous MOUSLEY POWDER PUFFS

The powder puffs with the largest sale in the world. Write for particulars of complete range and trade terms.



All the new Mousley products are treated by means of the Ultra Violet Ray so that not only are they purified as hitherto but by this secret process actually get the health-giving properties of the Ultra Violet Ray.

MOUSLEY'S 'SUN-RAY' SERIES

Treated with the ULTRA-VIOLET RAY.

'SUN-RAY' BEAVERPUFF.

'SUN-RAY' POWDER.

'SUN-RAY' FACE-CREAM.

'SUN-RAY' DOWN PUFFS.

VISIT OUR SHOWROOMS
at 38 OLD BOND STREET, W.1.

FRANK MOUSLEY

Manufacturer of the 'Beaverpuff,' Lambpuff, etc.

Sole Distributors:

Ruskin Dawney & Company, Ltd.
of 38 Old Bond Street, London, W.1.

"TOINOCO" PAPER FACE TOWELLETES

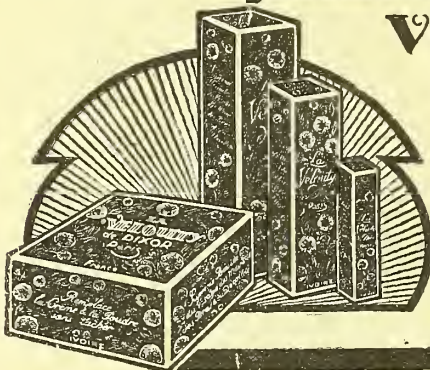
THE LATEST TOINOCO PRODUCT.

Attractively packed, **50** for **9d.** Wholesale price, **6/-** per dozen for not less than half-dozen packets. **ENTIRELY BRITISH.**

They are soft and absorbent. They are slightly creped so as to cause a mild friction if desired. To obtain the best result from all Complexion Creams and Skin Foods it is essential that a perfectly clean medium, such as these Towellettes, should be used for each application.

From all Wholesale Sundry Houses or from the Sole Proprietors:

THE TOINOCO HANDKERCHIEF CO. LTD., LONDON. (Wholesale only.)



VELOUTÉ de DIXOR PARIS .. COMBINED CREAM AND POWDER

The advertised line that you are asked for

DAINTY PRESENTATION

Samples free upon receipt of tradecard or billhead

Prices:—	Full size pot 21/- doz.	Retail	2/9
Super Tube	22/-	"	3/-
Large "	14/-	"	2/-
Handbag "	3/-	"	6d.

Made in three shades: **WHITE. IVORY and NATURAL.**

Obtainable from your regular Wholesaler or direct from the Sole British Agents:
DEBACQ & HARROP, 68 Newman Street, Oxford Street, LONDON, W.1

FLOROGEN Regd.



GREEN TUBES
Nickel Caps.

FROZEN COLOGNE
(Does not evaporate)

**SOLIDIFIED GLYCERINE
AND ROSE WATER**

Ask your Wholesaler.

Show material direct from us
on application.

The Florogen Co., Ltd.

Manufacturing Perfumers,
47 Meadow Rd., London, S.W.8



WHITE
METAL
TUBES
Push-up
bottom.

ROWLAND'S MACASSAR OIL

A line it pays to stock.

P.A.T.A. 3/6, 7/-, 10/6.

THROUGH ALL WHOLESALERS.

A. Rowland & Sons, Ltd.
112 GUILFORD STREET, LONDON, W.C.1.

ANYTHING IN THE SUNDRIES LINE RENE HEYMANS LTD.

WHOLESALE ONLY.

including ENEMAS, WHIRLING SPRAYS, SOOTHER FITTINGS, DOUCHE
FITTINGS, POWDER and VANITY PUFFS, BRUSHES, COMBS, POWDER PUFF
:: :: :: :: MANUFACTURING ACCESSORIES, Etc., Etc. :: :: ::

Our Paris House is always on the look-out for Novelties suitable for
manufacturing purposes, and we shall be glad to obtain articles for clients.

9, 10 DOMINGO STREET, LONDON, E.C.1

SATISFACTION

To give SATISFACTION is the essence of GOODWILL.

You want to be able to feel that with every article you sell you are giving satisfaction to your customers and thus inducing them to come back to you—with their friends for other things.

To sell SATISFACTION is not always easy with Perfume Sprays, unless the spray is backed by a guarantee.

With a guarantee, whatever happens, you know that you can always give satisfaction to your clients without loss to yourself.

We do not claim absolute Perfection for the "B.G." Sprays, but we repair or replace free of charge any found faulty within a reasonable period.

WHY NOT GIVE the "B.G." SPRAYS A TRIAL this CHRISTMAS ?

OBTAINABLE FROM ALL LEADING WHOLESALERS.

BRIDGEN & GRIFFIN

25 BARTLETT'S BUILDINGS,
HOLBORN CIRCUS — E.C.4.

Mark our Words!

Every Woman will soon want a

FURSAC POWDER PUFF



NO struggling to stuff puff into bag. It is the most practical puff on the market. Any powder can be used—*none can spill*, for it is supplied to the natural fur puff through valves from a separate compartment. Show one to any lady customer and hear what she says. *It solves every powder puff problem.* Each puff attractively and luxuriously boxed. Novel and compelling showcards supplied free.

PRICES P.A.T.A.

LEATHER

Midget 2/6 each 20/- doz.

Standard 3/6 each 28/- doz.

De Luxe 5/- each 40/- doz.

SILK

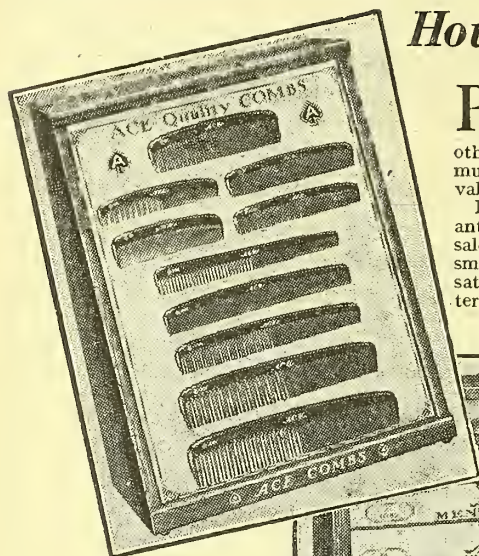
Vanity 4/6 each 36/- doz.

*All principal Wholesalers
hold stock: Manufacturers:
Solport Brothers Limited
Goswell Rd. London, E.C.1*



★ We are about to
advertise it in the
national press—so be
ready for the demand

How much does your profit cost you?



Each individual, strong, indestructible, well made and finished comb is protected by a stout, transparent envelope, and as will be seen from the illustration the handy arrangement of the stock facilitates rapid selling. Net price of Cabinet containing 10 doz. Combs **£5.5s.**

PROFIT is something more than the mere difference between buying and selling costs. There are other very important factors which must be considered in estimating the value of a sale.

How much of your—or your assistant's—time is spent in effecting the sale? Is the effort required great or small? Is your customer completely satisfied? Measure these points in terms of £. s. d. and you will

have the real value of your sale. Because the Ace Comb Cabinet is a very real money-saver, it has been welcomed by dealers throughout the country. With this cabinet on your counter your comb sales will be immensely simplified. The whole range of combs is attractively displayed on the front of the Cabinet, while any comb is immediately at your hand at the rear of the Cabinet.

HARD
RUBBER



COMBS

THE ACE COMB CABINET contains 1 dozen combs each.

Code No.	Description	Retailing at	Total s. d.
288	Men's Combs	1/3	15 0
1085	" " " " " "	1/4	18 0
1028	" " " " " "	1/6	18 0
1074	Dressing Combs	1/4	18 0
1024	" " " " " "	1/6	18 0
60	Bobbed Hair Combs	1/-	12 0
63	" " " " " "	1/3	15 0
64	" " " " " "	1/8	£1 0 0
70	" " " " " "	1/-	12 0
3158	" " " " " "	1/3	15 0
Total Retail Price			£7 17 0

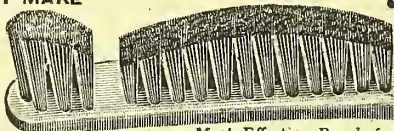
AMERICAN HARD RUBBER CO.
(BRITAIN), LTD.,

13a FORE STREET, LONDON, E.C.2.

Sole Distributors—**PENNEY & CO., LTD.**
10/18 BEAK STREET, REGENT STREET, W.1.

G.A. 5677

BEST ENGLISH MAKE



SEND ENQUIRIES
for Dental Plate
Brushes to

"MARSON" Dental Plate Brush
THE BEST SELLER. IN STIFF BLACK BRISTLE.

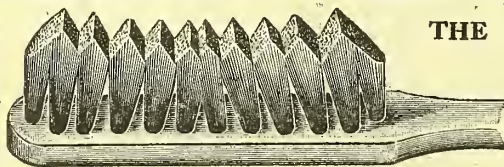
MADE IN ENGLAND
"ST. LUBRIZO"

"MARSON"
DENTAL PLATE
BRUSH

SILVERED
FINE BRUSH

Most Effective Brush for cleaning Artificial Teeth.

C. F. MARSHALL & SON, Devonshire Works, Devonshire Road, Hackney, LONDON, E.9.



A QUICK SELLER. TRY IT!
THE "ODENTIC TWO-WAY" Regd. TOOTH BRUSH

has its tufts of **PURE BRISTLES** so arranged that it offers the maximum resistance in brushing in both directions. Made by a firm with 100 years' experience.

Two sizes: **GENTS. (4 Rows); LADIES, (3 Rows).**
Small Show-card with every 1-dozen.

Manufacturers: **W. R. SPEER & SON, 215 Dalston Lane, London, E.8**
Obtainable from all Wholesalers.

BIDWELLS' PROPHYLACTIC TOOTH BRUSHES

IN THREE SIZES



SILVERED WIRES.

EACH IN CARTON.

CASTLE MILLS, AXMINSTER. On 6 dozen lots own name free on Carton, if desired.

BUY BRITISH

THE NEW SHEFFIELD STEEL

DARWIN

SAFETY RAZOR BLADES

Gillette, Auto-Strop and Ever Ready
Types

MADE IN SHEFFIELD FROM
PATENT COBALT STEEL
Therefore more durable than the
ordinary blades.

**Remember: They have
RUSTLESS EDGES**



5 for 2/3. 10 for 4/6.

These prices will be strictly maintained.

WHOLESALE 30/- BOX OF 100.

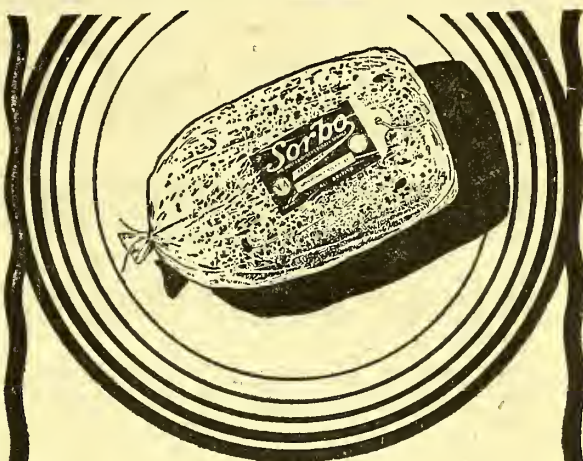
**PRESS ADVERTISING
IN PROGRESS
BE PREPARED TO SUPPLY**

*Send your Enquiries to the Wholesale
Distributors to the Chemists' Trade.*

JOHN TIMPSON & Co., Ltd
MEDICINAL AND CHEMIST SUNDRIES
**106, Golden Lane,
LONDON, E.C.1**

"PHONE :
CLERKENWELL 4778;

"WIRES :
"POROUS BARB, LONDON."



An ever widening circle of customers

from Sorbo Sponges

EVERY Sorbo Sponge you sell is a recommendation for your shop. In the Sorbo Sponge your customers will find something better than they have ever had in the way of rubber sponges. Sorbo Sponges will not tear; they will not get slimy (in fact, soap improves them)—and they have a wonderful massage effect, freshening and beautifying the skin.

Be sure you stock Sorbo's in all sizes, for they mean a continuous steady sale with a handsome protected profit. Complete Catalogue and Trade Terms on application.

Sorbo sponge

THE MOST ABSORBENT RUBBER SPONGE

Retail prices from 1/3 to 10/6 each.

Some other quick-selling Sorbo Lines

Floating Bath Toys, Bath Mats, Complexion Gloves, Bath Straps, Insoles, Heel Elevators, Massage Pads, etc.

Write for particulars.

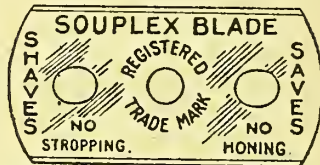
SORBO RUBBER-SPONGE PRODUCTS, Ltd.
Sorbo Works, Woking, Surrey.

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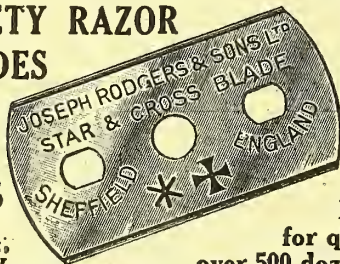
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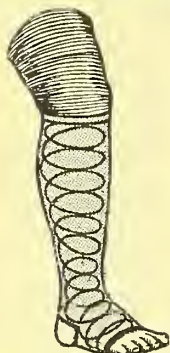
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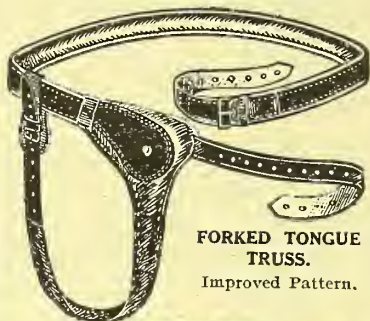


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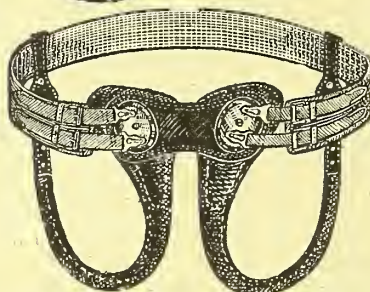
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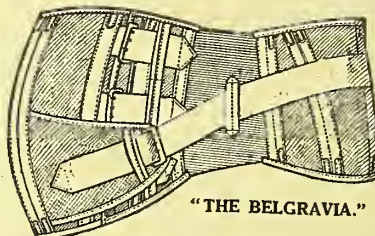
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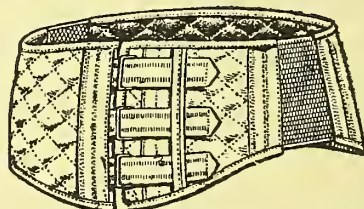
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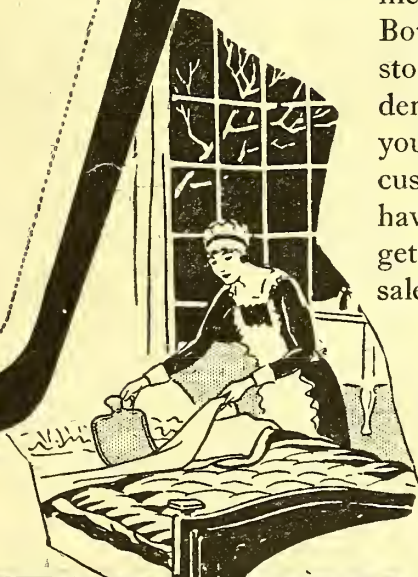
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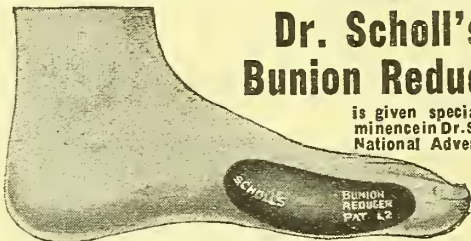
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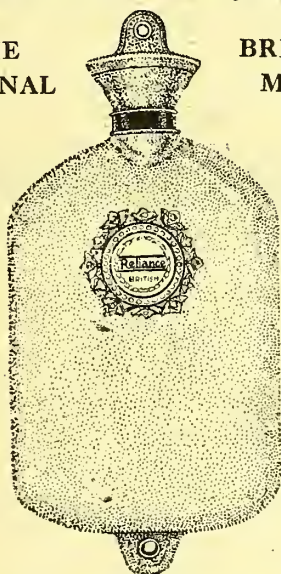
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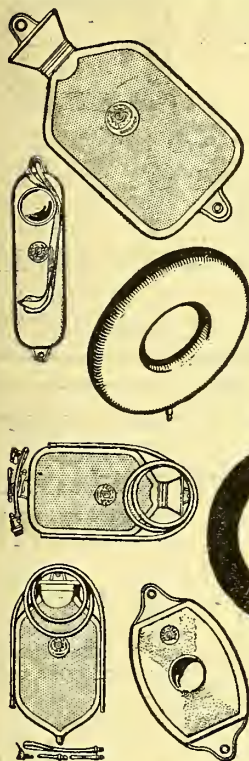
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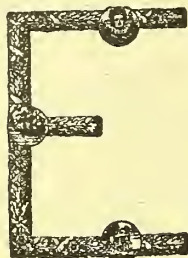
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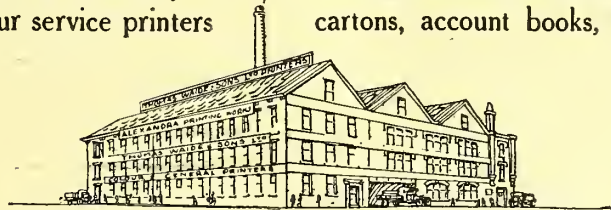




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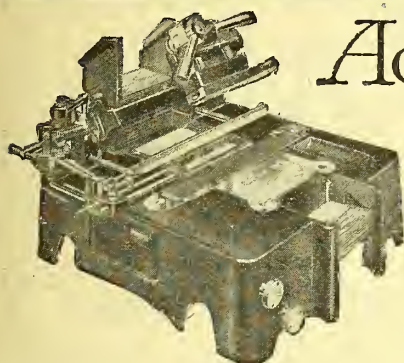
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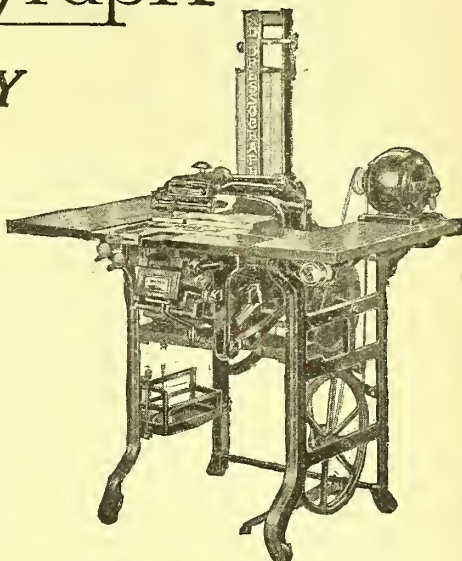
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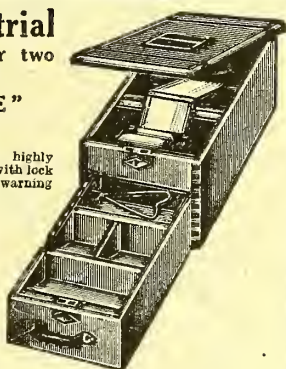


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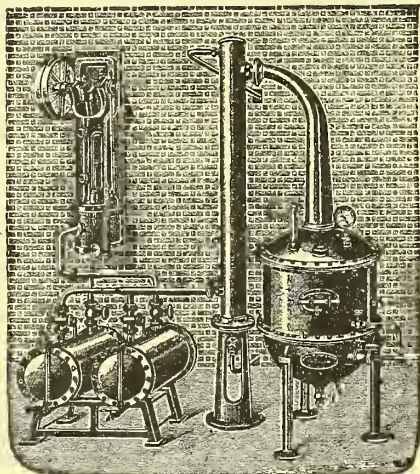
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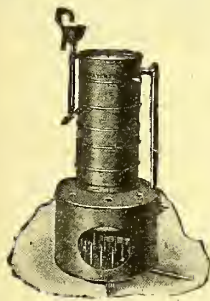
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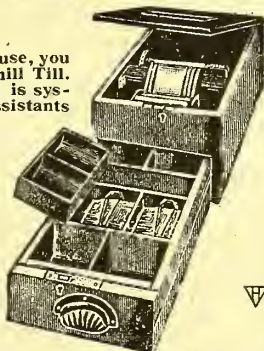
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85th ANNUAL MEETING, Held June 9th, 1926

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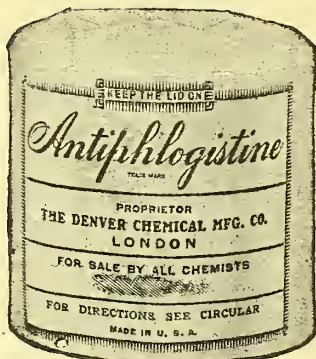
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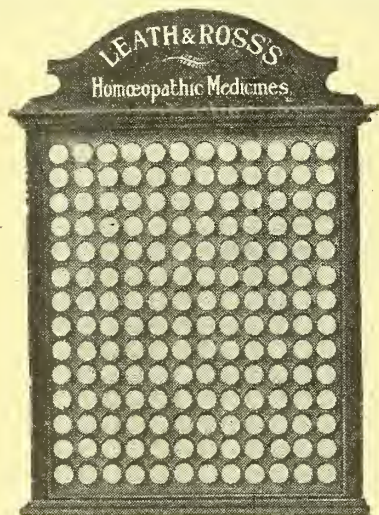
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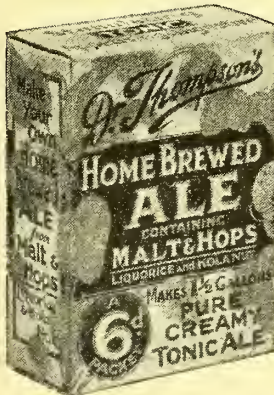


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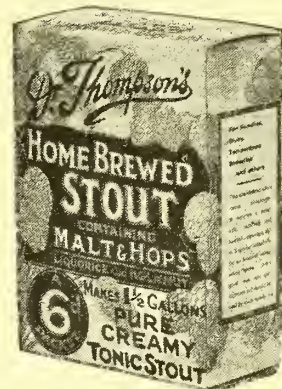
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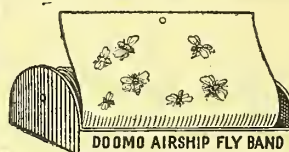
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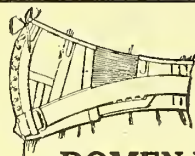
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Business Changes

HAYMAN & FREEMAN, chemists, have opened a pharmacy at 93 Piccadilly, London, W.1.

TAYLORS' DRUG CO., LTD., chemists, Leeds, have opened a branch at 204 Town Street, Bramley.

W. V. WRIGHT, LTD., chemists, have removed from 25 Hammersmith Broadway to 3 Queen Street, Hammersmith, London, W.6.

MR. P. N. HARBORD, Ph.C., has acquired the business of Mr. W. T. Robinson, Ph.C., 80 Pitshanger Lane, Ealing, London, W.5.

ASCOTT'S PHARMACIES, LTD., chemists, London, N., have purchased premises at 281 High Road, Ilford, where they will shortly open a branch.

MR. P. M. BROOKS, chemist and druggist, late of Whitby, has taken over the business of Wray & Thompson, chemists, Church Street, Norton, Malton.

GORDON MURRAY & Co., LTD., manufacturers of Birley's Phosphorus, have removed from 10 Adam Street, Strand, London, W.C.2, to 16 Northdown Street, King's Cross, N.1.

English and Welsh News

The Editor will be obliged if subscribers will send him marked copies of newspapers containing items of interest for insertion in this or other news sections.

Therapeutic Substances Act, 1925

The Advisory Committee under the Therapeutic Substances Act, 1925, has been constituted as follows:—

Name	Appointed by
Sir George Newman, K.C.B., M.D. (chairman)	The Minister of Health.
Mr. John Jeffrey ...	Scottish Board of Health.
Dr. Thomas Houston ...	Ministry of Home Affairs for Northern Ireland.
Dr. H. H. Dale, C.B.E., F.R.S. ...	Medical Research Council.
Sir Nestor Tirard, M.D. ...	General Medical Council.
Mr. C. O. Hawthorne, F.R.C.P. ...	British Medical Association.
Dr. J. H. Burn, M.A. ...	Pharmaceutical Society of Great Britain.
Dr. J. F. Tocher, F.I.C. ...	Institute of Chemistry.

Birmingham

W. H. Wilkins, Ltd., chemists, are opening a branch in Woodthorpe Road, Alcester Lanes End.

Sunday morning's earthquake exceeded the test match in point of importance in the Midlands. Generally speaking, little or no damage was done.

A directory published in 1770 records that there were twenty "apothecaries and surgeons" and fourteen druggists in Birmingham, which then had a population of 30,804.

Liverpool

Having visited the Norfolk Broads by car, Mr. and Mrs. A. J. Ferriday finished up their holiday by staying with Mr. and Mrs. Ashcroft at Hoylake.

Mr. J. L. Hirst, President of the Liverpool Chemists' Association and the Liverpool Branch of the Pharmaceutical Society, is spending his holidays in the Isle of Man.

A well-known chemist says that this month's business will compare unfavourably with that of last August. Photographic business has not been anything like so good as last year.

Manchester

In normal conditions this is the period of the year when the least sickness is recorded. Manchester's death rate of 7.7 last week was the lowest for some time past. The only disease which showed an increase was diphtheria.

Sunday's earthquake was felt by a great number of Manchester residents. A relative of one South Manchester chemist assured him that the bedroom floor seemed to rise and fall and the handles of the wardrobe distinctly rattled.

Sheffield

Mr. Child has commenced business in Coleridge Road, Attercliffe.

Mr. T. F. Burdekin, Bell House Road, announces in his window that he has had a record year in Insurance dispensing.

Several chemists, including Messrs. Hewitt and Knowles from Sheffield, have been touring in Spain and the Mediterranean.

Following the marriage announced elsewhere in this issue between Mr. Leslie Piper and Miss L. Antcliffe, Mrs. Antcliffe held a reception at The Beeches, Barnsley Road.

Miscellaneous

PROPOSED SHOPPING FESTIVALS.—It is proposed to hold a shopping week at Bingley from October 15 to 23.—Arrangements for the Blackpool Jubilee Shopping Festival, which lasts from October 1 to 30, are well in hand.

POISONINGS.—Cases of fatal poisoning recorded since our last report include accidental deaths (London and Bolton) from taking liniments containing aconite and belladonna, and a suicide (Northampton) by means of Carbocide.

INSULIN IN DRUNKENNESS CHARGE.—At Marylebone Police Court, London, on August 13, Dr. James Glover, Bentinck Street, W., was fined £20, with £10 10s. costs for being drunk while in charge of a motor-car, and £10 for dangerous driving. Dr. Glover said he was suffering, not from drunkenness, but from insulin poisoning, due to an overdose, and four more medical men were called to testify that symptoms of insulin poisoning might be mistaken for those of alcoholic poisoning. Notice of appeal against the conviction has been given.

CRICKET.—At Dulwich Park, London, S.E., on August 14, a match between Kolynos Cricket Club and the Old Crawfords Cricket Club, resulted in a win for the latter, the scores being: Old Crawfords, 174; Kolynos, 134.—On August 11, the Ipswich and Suffolk Branch of the Pharmaceutical Society met the 4th Batt. Suffolk Regiment, at Whitton. As the soldiers were unable to put in an appearance until 7 p.m., play was limited. Batting first, the soldiers declared at 43 for one, and dismissed eight of the chemists, who were handicapped by the falling light, for 33 runs.

FIRES.—The following outbreaks of fire have been recorded since our last report:—A fire broke out on August 10, at the premises of Philipps & Co., chemists, Lewisham High Road, London, S.E. The damage was not of a serious nature.—A slight outbreak of fire occurred on the premises of Pierson, Morrell & Co., Ltd., manufacturing chemists, Barnet, on August 14. The flames were quickly extinguished, and the limited damage is causing no interference with business.—A fire, which broke out in London, S.E., on August 14, did not, as might have appeared from some reports, involve the premises of Dubuis & Rowsell, perfumery material merchants, Great Guildford Street.

IN THE COURTS.—At Bournemouth, on August 9, Beatrice Gilbert was sentenced to six months' hard labour for obtaining by false pretences goods to the value of £11 16s. 6d., from the Boscombe branch of Timothy White Co., Ltd., chemists. It was stated that the accused had posed as the wife of a Mr. Kelly, who, she alleged, was managing director of a well-known company in London.—In Durham County Court, on August 10, the trustee in bankruptcy in the matter of Philip Daley, chemist and druggist, Stanhope, applied for instructions as to whether certain late creditors had as equitable claim as the earlier creditors. The judge remarked that he could not give a decision without hearing the parties, and the application was withdrawn.—At Blackburn Police Court, on August 16, Norman France, Atherton, described as a chemist's assistant, was fined £3 for driving a motor-cycle at an excessive speed.—At East Ham Police Court, on August 16, S. Kow, a Chinese fireman, was fined £20 for being in unlawful possession of 4 lb. of raw opium.

Scottish News

Brevities

M. Todd & Co., ironmongers, Newmilns and Darvel, Ayrshire, have applied to the local authority for a licence under Section 2 of the Poisons and Pharmacy Act, 1908.

Mr. J. T. Symington, son of Mr. J. M. Symington, chemist and druggist, Inverness, has passed his final examination in medicine. Dr. Symington studied at Durham University.

At a recent meeting of the Argyllshire Insurance Committee it was unanimously agreed to protest against the proposals to abolish Insurance Committees and transfer their functions to local authorities.

The closing date for entries for the competitions of the Scottish Chemists' Bowling Association, which are to be played at Rutherglen, on September 1, is August 27. The secretary is Mr. J. T. Simpson, 268 Crown Street, Glasgow, C.5.

Under the title of "Oldest Science," Emeritus Professor F. O. Bower has contributed articles on the early days of botany in Glasgow to the August 10 and 12 issues of the "Glasgow Herald." The first article dealt with instruction in the University, and the second with Crown chairs.

In a letter to the "Fife Free Press," August 14, a correspondent remarks: "... The doctor and chemist are our first line of defence when sickness overtakes us; it will soon be useless for men to train in these professions if they are not free to use their knowledge and skill. ..."

The accompanying illustration depicts the pharmacy recently opened by Mr. J. W. Pattullo, chemist and druggist, London Road, Edinburgh (C. & D., July 3, p. 3).



The premises were fitted up by Mr. G. Davidson, Abbeyhill, a brother of Provost Davidson, chemist and druggist, Blaingowrie.

Irish News

Londonderry

Mr. J. E. O'Neill, R.D., Maghera, was a member of the Grand Jury at County Londonderry Assizes.

Mr. H. Sweeny, Ph.C., Strand, Londonderry, has returned from a motor tour of Killarney and the West Coast of Ireland.

Belfast

At the annual meeting of the Northern Irish Branch of the National Federation of Sub-Postmasters, in Belfast, on August 12, Mr. J. Henderson, R.D., Belfast, was elected President, and Mr. J. F. Grimes, J.P., R.D., Pomeroy, co. Tyrone, Vice-President.

A meeting of the general committee of the Chemists' and Druggists' Society of Ireland was held recently at 11 Waring Street, Belfast, the President (Mr. Fred Storey) in the chair. A letter was read from Mr. Storey, thanking the members for their sympathy in the loss by death of his mother. Mr. Gibson said that, as this was the first committee meeting since Mrs. Storey's death, he would like to say that most of the members knew Mrs. Storey personally, and they could well understand how great the sorrow would be at her passing. Mr. Storey thanked Mr. Gibson and the members for their kind sympathy. Arrangements were made to hold the annual picnic on August 25 to Brown's Bay, Islandmagee. A long list of new members and associates were elected, and a number of accounts were passed for payment. The secretary reported that the rooms had been done up and looked well. They were now running classes in the rooms for all grades for the December examination under Mr. A. H. Storey, Ph.C., and Mr. Getty, Ph.C. Classes were also being arranged in the Municipal Technical College. In answer to Mr. Gibson and Mr. Busby regarding the Council election, the President said that two druggists and four pharmaceutical chemists went out at the end of the year. Mr. Smith and himself were the druggist representatives on the rotation list to retire.

French News

From the "C. & D." Paris Correspondent

FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—A Lyons friend sends me a few details of the recent meeting of the Association for the Advancement of Science at Lyons. There were lectures by M. Maire on the development of the chemical industry, and by M. le Wita on the progress of the French dye industry, which drew large audiences. There were interesting dental and medical exhibits at the exhibition which accompanied the congress.

LOUIS XIV.—A French journalist has examined the handsomely-bound volume in which the liberalities of Louis XIV are officially recorded. The sum of 4,400 livres accorded to the "English doctor who had given remedies to the Duc de Maine" may be familiar to pharmaceutical readers; but it is interesting to note that on three occasions (1655, 1655, 1670) the handsome presents of jewellery, etc., sent to the Queens of Poland, Denmark and Sweden were in each case accompanied by perfumes.

DR. C. L. LAFAY, who for so many years owned the well-known pharmacy in the Chaussée d'Antin, Paris, has died. He held a medical as well as a pharmaceutical degree, was a Laureate of the Academy of Sciences, a member of the Paris Society of Pharmacy since 1896, and when elected president a few years ago, delivered a remarkable inaugural address in which he dwelt on the difficulty, not to say the practical impossibility, of running a modern retail business in strict accordance with existing laws. He was a prisoner of war during the hostilities of 1914-18, and was made officer of the Legion of Honour in 1921. Dr. Lafay was also for many years one of the retail pharmacists on the Permanent Codex Revision Committee. His death will remove a well-known figure from French pharmacy.

CHAULMOOGRA.—M. Perrot, Professor of Materia Medica at the Paris Faculty of Pharmacy, gave a brief account of chaulmoogra and similar seeds to his colleagues of the Paris Society of Pharmacy. Samples were handed round of the principal East Indian varieties, *Hydnocarpus anthelmintica*, *H. alpina*, *H. Wightiana*, etc., *Taraktogenos Kurzii*, as well as of the South American *Carpotroche brasiliensis* and the West African *Oncoba echinata*. The seeds of the Cambodian krabao are now also utilised, and those of the gorli are being studied. Some plantations of the last-named exist on the French Ivory Coast, other species are being experimentally raised in French West Africa and Madagascar. Professor Perrot added a few remarks on certain Central American and Colombian drugs—peyotl, yagé, aya-huasca, and especially yocco. The bark of the last-named is regularly used as a stimulant by certain tribes of Colombian Indians; it contains 1½ to 2 per cent. of caffeine. M. Perrot has not yet been able to determine its exact botanical origin, but hopes to do so on receipt of further specimens.

ETABLISSEMENTS KUHLMANN.—The big chemical concern known as the Etablissements Kuhlmann recently celebrated its centenary. Founded in 1825 by Charles Frederic Kuhlmann, Professor of Chemistry at the Lille University, as a modest sulphuric-acid factory, it grew with the progress of science. At the outbreak of the war all its works were in the North of France and in Belgium, all within invaded and occupied territory. This led the company to start works well out of the reach of possible invasion, and large sulphuric-acid works for the French Government were erected at Port de Bouc in 1915, a more general chemical factory at Marseilles in 1916, while subsequently establishments were acquired at Bordeaux, Nevers, near Rouen, and elsewhere. When peace was declared, the Northern works were reconstructed (1919-21), but the policy of extension was followed, and factories installed or acquired in Brittany, Lorraine, Normandy, etc., so that the company now practically covers the whole of France, and has taken up the manufacture of several new lines, such as dyes and pharmaceutical products. It was the first to produce in France nitric acid by the oxidation process and acetic acid from calcium carbide.

Colonial and Foreign News

FIRST TURKISH WOMEN DENTISTS.—For the first time in Turkey, two women have obtained the diploma of the Constantinople School of Dentistry.

THE CONSTANTINOPLE ANTIRACIC INSTITUTE and the Antiplague Laboratory, established under Abdul Hamid with the assistance of the Paris Pasteur Institute, are to be removed to Anatolia and will be installed in a farm near the railway line between Eskichehir and Karahissar.

NEW GERMAN PHARMACOPOEIA.—The sixth edition of the German Pharmacopoeia, now in the press, is expected to appear about the middle of September. The Reichsrat has issued a notice to the effect that the new edition becomes official on January 1, 1927, in the place of the work published in 1910.

DUTCH EXCISE DUTY ON ISOPROPYL ALCOHOL.—In consequence of the increasing use which is being made of isopropyl alcohol, in the place of ethyl alcohol, in the manufacture of hair lotions, pharmaceutical preparations and varnishes, the Dutch Government is considering the advisability of introducing an excise duty of fl. 1.45 per litre on isopropyl alcohol, which is not to be refunded on exportation.

CATALOGUES FOR RUSSIA.—The Soviet Council for Industry and Defence has decided that all nationalised institutions and Government economic organisations may order on their own behalf and receive without a licence price lists, catalogues and prospectuses from foreign firms. Permission has also been granted to these undertakings to correspond direct with firms outside Soviet Russia in connection with purely technical questions.

SODA ASH FACTORY IN KWANTUNG.—In connection with the soda ash factory (*C. & D.*, July 31, p. 195) which is shortly to be established in the Kwantung Leased Territory, investigations are in progress concerning the available supply of salt. Dr. Nishikawa, of the Asahi Glass Manufacturing Co., has reported that about 470,000,000 kin of salt can be obtained in Kwantung from about 5,000 chobu of salt fields, and that it is possible to increase this output to 800,000,000 kin in the future.

BURMESE STICKLAC.—The report on the Forest Administration of Burma for the year ended March 31, 1925, states that during the year under report 60,413 cwt. of sticklac, valued at Rs. 38,44,647, was exported, of which 59,651 cwt., valued at Rs. 37,87,855, went to Bengal. Two officers were deputed to the Central Provinces to study the possibility of improving the output of lac, and they are now employed in the practical application of the result of their study, one at Maymyo and the other in the Federated Shan States.

CALCUTTA'S LARGER IMPORTS OF DRUGS AND MEDICINES.—For the fiscal year 1925-26 there was an increase in the imports of drugs and medicines (excluding chemicals and narcotics) into Calcutta, the total amounting to rs. 65.67 lakhs, compared with rs. 58.58 lakhs in 1924-25. The increase was accounted for by larger imports of quinine and of drugs and medicines other than camphor and cassia lignea. The two last-named items dropped from rs. 5.82 lakhs to rs. 3.28 lakhs, and from rs. 4.16 lakhs to rs. 3.87 lakhs respectively. Quinine advanced from rs. 15.23 lakhs to rs. 19.25 lakhs, and other drugs and medicines by rs. 6.10 lakhs to rs. 39.47 lakhs. Total imports of drugs and medicines into Calcutta were much larger than in any of the previous five years.

SPECIALITIES IN PORTUGAL.—At a recent meeting of the Sociedade Farmaceutica Lusitana attention was drawn to the flooding of the Portuguese market with foreign pharmaceutical specialities, many of which were alleged not to correspond with the formula disclosed on the container. Portugal, it was stated, is commonly regarded by commercial speculators in Europe as the best field for exploiting the most fantastic medicinal and pharmaceutical products, which are gradually strangling legitimate pharmacy in the country. It is proposed to entrust to a number of members of the Society the task of analysing these preparations and to publish the results of their investigations; the Government is to be approached with a request to facilitate this work by permitting the analyses to be conducted in the large laboratories under its control.

Legal Reports

Hawking Carbolic Disinfectant.—At Greenwich Police Court, London, on August 16, Alfred George Clark, who was charged on remand with acting as a pedlar without the requisite licence, was also summoned for having sold "carbolic" in a bottle not distinguishable by touch, in contravention of the Poisons and Pharmacy Act, 1908. There was a second summons charging him with not labelling the bottle "Poisonous," and "Not to be taken." It was stated that the defendant was selling a weak solution of carbolic acid from house to house. An analyst stated that it was unlikely that the solution in respect of which the defendant was summoned would have caused death. The magistrate was informed that the defendant acted more in ignorance than wilfully, and the two fresh summonses against him were dismissed. On the charge of acting as a pedlar he was fined 5s.

Shops Act Prosecution.—At Torquay, on August 16, Mr. Wilfred H. Bathe, trading as Bathe's Drug Stores, Fleet Street, was summoned under Section 4 of the Shops Act, 1912, for having failed to close his premises at the required time on the Wednesday following August Bank Holiday. A police inspector gave formal evidence of visiting the defendant's premises. Cross-examined by Mr. W. D. Thomas, solicitor, the inspector said that there had been spasmodic prosecutions under the Act. Mr. Thomas: I suggest that the Act had been disregarded?—Apparently by the traders in some cases, and very much to the detriment of those people who have to close because they have not mixed shops. It is because of the bitter complaints from traders who deal solely in commodities which mixed shops sell and have to close that these prosecutions are taken. Mr. Thomas, addressing the Bench on behalf of Mr. Bathe, said he wished to plead "Guilty," but a man must protect his own trade. On this particular day Mr. Bathe had a breakdown and 200 orders had to be given out. At Paignton shops were allowed to keep open during the busy summer months, and he believed that if a majority agreed this was permissible at any seaside resort. The inspector pointed out that if the traders felt so strongly on the matter they could, by securing a two-thirds majority, obtain exemption for the four months of the summer season. Mr. Thomas agreed, and said that it was strange that a person was entitled to sell goods from an automatic machine so long as his premises were not open. Mr. Bathe had made arrangements for his assistants to have their holidays as required by the law. The chairman said the defendant had had the satisfaction of expressing his opinion, and this would ventilate the subject and dissipate the ignorance in regard to what the law really was. A fine of 10s. was imposed.

New Companies and Company News

P.C. means Private Company and R.O. Registered Office

MANSELL, LTD. (P.C.).—Capital £400. Objects: To carry on the business of chemists, pharmacists, druggists, dentists and photographers, etc. R.O.: 37 Theobalds Road, London, W.C.1.

R. W. MCKAY, LTD. (P.C.).—Capital £1,500. Objects: To carry on the business of Terry and fancy powder puff and other fancy goods manufacturers, etc. R.O.: 130 King Street, Hammersmith, London, W. 6.

ARTHUR DAVIS & SON, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of chemical manufacturers, chemists, druggists, dyers, oil and colourmen, etc. Solicitors: Lupton & Fawcett, Leeds.

ANECY, LTD. (P.C.).—Capital £500. Objects: To carry on the business of importers, exporters, and manufacturers of and dealers in toilet requisites and preparations, perfumes, etc. R.O.: 195 Victoria Street, London, S.W.1.

GASTROSOL, LTD. (P.C.).—Capital £600. Objects: To carry on the sale of a preparation called "Gastrosol," and to carry on the business of buyers, sellers and dealers in all

kinds of medicinal and other proprietary preparations, etc. R.O.: Ceylon House, 15 & 16 America Square, Minorities, London, E.C.3.

WALLACE H. BROWN, LTD. (P.C.).—Capital £100. Objects: To carry on the business of manufacturers of and dealers in physical culture and health appliances, surgical, medical and scientific appliances and instruments, health foods and drinks, medicines, drugs. R.O.: 13½ Paternoster Square, London, E.C.4.

BOOTLE DISINFECTING FLUID CO., LTD. (P.C.).—Capital £500. Objects: To carry on the business of manufacturers of and dealers in disinfectant and other liquid soaps, cattle foods, metal and other polishes and disinfectant and other fluids, etc. The directors are: J. S. Riley, jun., and D. S. Eaton. R.O.: 21 Litherland Road, Bootle.

LASEID, LTD. (P.C.).—Capital £1,000. Objects: To carry on the business of chemists, druggists, dispensers, wine and spirit merchants, vendors of medicines and surgical appliances, etc. The directors are: I. Silberberg, chemist and druggist (permanent managing director), and S. Deutsch, chemist. R.O.: 128 Salmon Lane, Commercial Road, London, E.

ALFRED DARLING & SONS, LTD. (P.C.).—Capital £5,000. Objects: To acquire the business of a surgical instrument maker and mechanical engineer, carried on by A. Darling at 25 Ditchling Rise, Brighton, as "Alfred Darling & Sons." The directors are: H. J. Darling, P. A. Darling, and A. Darling. Solicitors: J. K. Nye & Donne, Brighton.

NORGINE PHARMACEUTICAL PRODUCTS (LONDON), LTD. (P.C.).—Capital £5,000. Objects: To carry on the business of manufacturers, factors, compounders, importers, exporters, wholesalers or retailers of chemical, pharmaceutical, medicinal, hygienic, cosmetic, dietetic, therapeutic, industrial and veterinary preparations, herbs, soaps, cements, oils, pigments, paints, varnishes, dyewares and proprietary articles, etc. Solicitors: Herbert Oppenheimer & Co., 1 Finsbury Square, London, E.C.2.

SODAX, LTD. (P.C.).—Capital £5,500. Objects: To acquire certain patents and rights, and the invention of the subject of such patents, and the benefit thereof throughout the world, and the pending applications for the said invention owned by G. F. Sugden, to enter into agreements (1) with G. F. Sugden, (2) with W. L. Philip, (3) with L. Gross, and (4) an assignment of the trademark "Sodax" by L. Gross to the company, and to carry on the business of manufacturers of and dealers in soda-water machines, plant, vessels, syphons, filters, bottles, apparatus, appliances, containers and receptacles of all kinds for manufacturing, improving, treating, aerating, mineralising, bottling and discharging mineral, aerated and artificial waters, cordials, syrups, and other liquids, etc. R.O.: 175 Piccadilly, London, W.1.

KEENE'S TRADING CO., LTD.—At a meeting held in London on August 9 it was resolved that this company be wound up voluntarily. Mr. A. C. Vincent, 13 Queen Street, Cheapside, London, E.C.4, was appointed liquidator.

STEPHEN SMITH & CO., LTD. (HALL'S WINE).—The accounts for the year ended April 30, 1926, show, after providing for repairs, renewals, and depreciation (£2,259), income-tax (£14,889), and after placing £10,000 to reserve account and £1,000 to staff contingency reserve, a credit balance of £33,775, to which is added £1,017 brought forward. The usual 6 per cent. on the preference shares has been paid, and it is now proposed to make a further payment thereon of a bonus of 5 per cent., making 11 per cent. for the year, free of tax. The ordinary shares are to receive a final dividend of 5 per cent., and, in addition, a bonus of 5 per cent., making 15 per cent. for the year, free of tax. Interest at the rate of 5 per cent. has been credited to the staff contingency reserve, in addition to the amount placed to that reserve out of the year's profits. The balance carried forward is £1,671.

DRAFT REGULATIONS have been issued (Stationery Office, 2d.) with regard to the sale and conveyance of petroleum spirit.

British Pharmaceutical Conference

Delegates' Meeting

[ABRIDGED OFFICIAL REPORT]

THE delegates' meeting opened in the County Rooms, Leicester, on August 5, Mr. F. E. Bilson (President of the Pharmaceutical Society) in the chair.

Parliamentary Representation

An address on "Pharmaceutical Parliamentary Representation" was delivered by E. T. Neathercoat (*C. & D.*, August 7, p. 281).

DISCUSSION

THE CHAIRMAN said that with regard to the present Parliamentary Fund a fairly large sum of money had been contributed to this fund, but it had undergone diminution. There was a fairly considerable sum left. The fund was not under the direct control of the Society, nor was the committee entirely composed of the members of the Pharmaceutical Society. It was very desirable to increase the fund by several thousand pounds in order to do any good. In his opinion, it was time to do something further so that pharmacy might be adequately represented in the House.

Mr. W. BROWNE (West Metropolitan) said that he thought representation by two Liberals and two Conservatives would be useful, and would help to get a better hearing. He would be glad to see a request for a Parliamentary subscription entered on the form which was sent out to ask members for their yearly subscriptions.

Mr. J. L. HIRST (Liverpool) said that Liverpool, in particular, had noticed that at all the Conferences participated in nothing could be done unless they had someone at headquarters to speak for them. It was a *sine qua non* that the representative in the House of Commons should be a registered pharmacist, one who knew the difficulties and conditions that pharmacists have to put up with. He suggested that subscriptions should be applied for from headquarters through every branch of the Pharmaceutical Society. He would like to know how much money was wanted.

Mr. H. HODGSON (York) deprecated a voluntary subscription. Every qualified man should be prepared to stand some expense, which should not be left to a few manufacturers and men in influential positions. He would like to see the subscription paid direct to the Society.

Mr. A. CRAWFORD (Glasgow) said that he did not profess to represent the opinion of the Glasgow members. He did not see that so much attention need be paid to secrecy. If they had anything to gain by being represented in Parliament, it was advisable to put all their cards on the table. He did not see why they should not consider themselves strictly as a trade union, with which they had much in common. He considered that pharmacy was peculiarly suited to organisation, perhaps even on a national scale. If they were going to have representation in Parliament they should have it in the same way as trade unions were represented. He thought that they should forgo for the moment the idea of professionalism and get used to the idea that they were only working men, and that they should form a proper militant trade union and be represented properly in Parliament with the ultimate aim of the nationalisation of pharmacy.

Mr. W. CHAPMAN (Glasgow) said that he did not think that representation was a matter of trade unionism at all. Every public body was represented in Parliament as far as they could be, such as doctors, landowners, etc.

Mr. J. H. FRANKLIN (Manchester) said he was sorry that the political question had been introduced into the discussion at all. Suppose, he said, that they had J. H. Thomas as representative of pharmacists in the House of Commons. Who would get a better hearing to-day? As regards the amount of money required, 5s. per registered member of the Society would give more than £3,500 per annum, and he was perfectly certain that it would prove the very best money that could be spent. When he was in politics they went to the agent and offered to put down £2,000 and a candidate was found at once. He believed that with £1,000 down it might be possible to have their interests watched over by four candidates.

Mr. G. A. MALLINSON (London), having obtained permission to speak (not being present as a delegate), said that as to the Parliamentary Fund it was impossible to say to whom the money was being paid. That was absolutely a *sine qua non* in connection with such a fund. However, it was possible to say how much money there was and how much was wanted. The composite committee suggested by Mr. Neathercoat would, he thought, give confidence throughout the trade as to the method of administration. He agreed that at least one man was needed in Parliament who knew pharmacy throughout. Having obtained such a representative he was inclined then to think that the best method was to spend the rest of the money in subsidies. He thought that all were agreed that Parliamentary representation was absolutely necessary for pharmacists, and he would go further than that. It was not only necessary to hold what had been already obtained, but with really good Parliamentary representation it ought to be possible to get something that they did not have. He did not agree with the suggestion for the nationalisation of pharmacy, and he thought that would be the general feeling of the trade.

Miss H. C. M. WINCH (Sunderland) said that the Sunderland Branch had passed a resolution:—"That this meeting considers Parliamentary representation is highly desirable, and that a fund should be raised as soon as possible so as to be ready to help candidates who would represent pharmaceutical interests in Parliament."

Captain H. A. HILL (London), secretary of the League of ex-Service Pharmacists, having obtained permission to speak, said that it was essential that a committee should be implicitly trusted and should not be asked too many questions as to how they secured the representation desired. As regards secrecy, he thought the purpose would be served if a statement was published of the number of grants made during the year, but not to whom they were given. A constituency might not like to know that their candidate was financed by the Society. He would like to have a representative in each of the two great political parties. He thought it was a good idea to collect money through the branches. It must be kept as a subscription entirely free from the subscriptions to the Pharmaceutical Society.

Mr. T. GUTHRIE (treasurer of the Society) said that they had been told that certain very big things were looming in the fairly immediate future. To set up a committee and to collect subscriptions would take a considerable time.

Major E. S. PECK (Cambridge) said that anyone who had taken any interest in the ex-Service League could not fail to be impressed by the absolute ignorance of the average member of Parliament of the qualification, opinions, and duties of the pharmacist. Undoubtedly they could not wait until a Parliamentary Fund had been established. In the League they had been making use of the present members of Parliament.

Mr. W. G. McNAB (chairman of the North British Branch) drew attention to the apathy of the trade throughout the country. He would suggest that a plebiscite be taken bearing this question: "In the event of a Parliamentary Committee being set up how much are you prepared to subscribe?"

Mr. W. J. TRISTRAM (Liverpool) supported the view that one of the men on the proposed committee should have a special knowledge of the case of the ex-Service pharmacists.

Mr. A. H. JENKIN (North London) said that although he represented a small but not unimportant section of pharmacy, he thought that such a body was too small to claim representation on that committee, neither did he think that the League of Ex-Service Pharmacists was sufficiently large for a representative on that committee, but at the same time he thought that the two bodies might in some way be called upon when their particular sections were under discussion by the committee. He said that in negotiating with Government departments, if one could go with a member of Parliament who knew something about the subject, there was much more likelihood of obtaining what was wanted than if one had gone without his services.

Mr. H. ANTCLIFFE (Sheffield) said that in the collection of subscriptions the whole of the Society should be called upon to help.

Mr. A. R. MELHUSH (London) said that it was very

desirable to crystallise in some form or other the proposals that had been brought forward, and he submitted the following proposition: "That this Conference urges that a committee be immediately set up by the Council of the Society on the lines suggested in the address of Mr. Neathercoat, in order that the whole position may be reviewed and that an appeal for funds may be made." He did not think that it was well then to discuss the how, why, wherefore, and the amount that the fund wanted. He formally moved the resolution.

Mr. P. F. ROWSELL (Past President of the Pharmaceutical Society) seconded, with the addition: "That the chairman of the Scottish Pharmaceutical Federation be also a member."

Mr. E. T. NEATHERCOAT said that he had no objection at all to Scotland being represented. The number on the committee would then be eight.

Mr. G. A. MALLINSON (London) suggested that a representative of the public pharmacists and a representative of the ex-Service men might also be put on.

Mr. A. E. YOUNG said that he would like to know definitely whether the resolution fixed merely a temporary or a permanent committee.

The CHAIRMAN said that he took it to be a permanent committee.

Mr. YOUNG then said that as chairman of the Retail Pharmacists' Union Executive he could not recommend his Executive to accept only one seat on the committee. So large a body might, he thought, properly expect a larger representation than one member on a permanent committee, though he would be prepared to accept the suggestion on a temporary committee.

Mr. A. R. MELHUSH (London) pointed out that the chairman of the Retail Pharmacists' Union would be the vice-chairman of the committee. It was along the lines of the address that Mr. Neathercoat had given that he himself proposed that this committee should be set up. It was impossible to go into minute details at the moment. It was obvious that there would be many details that would have to be threshed out before they got down to actual details of the proposed committee.

Mr. T. HARDY (Cumberland) said the proposed committee should ask the present Parliamentary Fund committee to take steps so that they might hand over their funds to the new committee.

Mr. E. T. NEATHERCOAT, in reply, said that there could be the utmost publicity in collection and in the publication of balance sheets and of the names of subscribers. He would say nothing with regard to the question of representation, as that had been dealt with by the Conference in the way that it thought to be right. The committee ought at once to see about the collection of funds so as to obtain £3,000 within six months, and £1,000 a year while the fund was in existence. He thought the two great organisations should appeal for subscriptions, should put it on their forms, and special subscriptions should be appealed for also through the branches. What he had suggested was the minimum with which it was possible to work.

The resolution: "That this Conference urges the Council of the Society to take immediate steps to set up a committee representing the Society, the Retail Pharmacists' Union, the Drug Club, the Proprietary Articles Trade Association, and the Scottish Pharmaceutical Federation, with the secretaries of the Society and of the Retail Pharmacists' Union as joint secretaries; that this committee endeavour by means of an immediate appeal for funds and in other ways to secure representation of pharmacy in Parliament; and that the Council explore the possibility of the present Parliamentary Fund being transferred to this committee," was carried unanimously. A hearty vote of thanks was given to Mr. Neathercoat for his address.

The Production of a Pharmacopœia

Mr. HERBERT SKINNER, Vice-President of the Pharmaceutical Society, read his paper entitled "The Production of a Pharmacopœia" (*C. & D.*, August 14, p. 296).

DISCUSSION

The CHAIRMAN said that a very instructive and well-thought-out paper, which must have taken a very great deal of time and thought to compile, had been brought before the delegates.

Mr. H. ANTCLIFFE (Sheffield) asked whether other pharmacopœias had statutory authority for the work.

Mr. SKINNER, responding, said that he was sorry that he had not been able to lay on the table a series of the twenty-one pharmacopœias which had been kindly placed at his disposal by the Editor of *THE CHEMIST AND DRUGGIST*. From them might have been obtained some idea of the way in which other countries set out their preparations. The pharmacopœias in every country, with the exception of the United States, were produced under Government authority. It should be borne in mind, however, that the descriptions did not apply always to commercial substances.

A hearty vote of thanks to Mr. Skinner was proposed by Mr. Antcliffe, and was carried by acclamation.

The Practical Training of Apprentices

On August 4 the President of the Society called upon E. H. SIMMONS (Salford) to give an address on "The Practical Training of Apprentices" (*C. & D.*, August 14, p. 297).

DISCUSSION

Mr. P. F. ROWSELL (Exeter) said that the paper that they had heard would require to be read very carefully in order to derive full benefit from it. The subject was very suitable for discussion by the branches. Their members might be able to offer suggestions which might or might not be adopted by the Council, which was always glad to receive such suggestions. Undoubtedly the first year of apprenticeship was the important one. In such early days the apprentice might profitably have a good deal of work which might be considered humdrum, but was nevertheless of a highly useful kind. It was essential that young men should be thoroughly grounded in accuracy, in detail and in exactness. He was glad to hear the reference to the necessity for apprentices learning to make the various entries in the books of record.

Mr. G. W. BRIGGS (Chesterfield and Mansfield) said that it should not be forgotten that there were certain men who were first-class assistants and yet never seemed as if they could pass an examination. He thought a business should offer not only every facility for scientific training, but also for shop training.

Mr. J. FLOWRIGHT (Brighton) suggested that one of the best methods for the ordinary retail pharmacist, as soon as an application from an intending apprentice had been received, was to encourage him to take his Preliminary Scientific examination before commencing his apprenticeship. He found that such a pupil had some useful knowledge when he came into the shop. He was able to make calculations and was less liable to errors. He did not think it was difficult to provide an apprentice with facilities for making galenical preparations. A man trained as proposed was likely to be both good and helpful to his employer.

Mr. W. J. BEARDSLEY (Member of Council) said that wholesale houses were at a great disadvantage in respect of apprentices, and that they contended that an apprentice who had been through the laboratory of a wholesale house did know something about his profession. He would have a first-rate knowledge of the determination of much in the Pharmacopœia. The only thing that he would lack would be salesmanship. The wholesale houses realised that they were part of the profession; but as things were, in the future they were likely to be managed either by bachelors of pharmacy, Fellows of the Institute of Chemistry, or men holding other than the qualification of the Society. They would like to have an opportunity of allowing apprentices to go out and receive 1,000 hours behind a retail counter for dispensing. He hoped that some method might be devised by the Council to enable the wholesale houses to come into line with the other members of the profession.

Mr. H. B. MACKIE (Brighton) said that apprentices should be recognised in the wholesale houses for the purposes of the degree. He did not think they should serve the whole apprenticeship before the ordinary Qualifying examination.

Mr. D. MITCHELL (Inverness) said that he regretted that no provision was made for the country apprentice.

Could the Council appoint travelling teachers of pharmacy?

Dr. E. G. BRYANT (Aberdeen) supported Mr. Beardsley in his contention for the training or partial training of the apprentice from the wholesale point of view. He believed in note-books being kept of all the work done by an apprentice. He felt that students were lacking as regards training in business methods. In particular he was thinking of pharmaceutical book-keeping. He deplored the ignorance of students at schools, who did not know the names of the various kinds of bottles. Even students from really high-class pharmacists seemed very deficient in this kind of information.

Major E. S. PECK (Cambridge) said he was in agreement with the suggestion that apprentices should pass the Preliminary Scientific examination before commencing their shop training. Such pupils could also study for the scholarships now available. He maintained that it was impossible for the Society to send round a number of inspectors to see that pharmacists were fit to train students. A suggestion had been made that there should be in every branch a voluntary panel of pharmacists willing to undertake the duty of training students. Application to go on this voluntary panel should carry with it the willingness to be inspected by the local branch. Such an arrangement would be helpful to a parent, schoolmaster, or anyone else who could go to that branch and ask for a list of those pharmacies where they recommended that teaching should be undergone. With regard to the advisability of allowing wholesalers to train apprentices, it seemed to him that a man would have to decide early in his career for which particular branch he was going in, and he thought that, should he decide for the wholesale business, he would be best advised to go in for the degree of bachelor of pharmacy. He wished particularly to draw attention to what he considered a main factor in the satisfactory training of apprentices, namely, the training of character.

Mr. H. BERRY (Birmingham) considered that the apprentice should complete Part I before becoming a pupil. He desired also to support Mr. Beardsley that they should link up in some way the wholesale houses with the pharmaceutical qualification, and he thought it would be an excellent idea in connection with the bachelor of pharmacy degree that the 2,000 hours might be spent in a wholesale house.

Mr. W. FORSTER (Seaham Harbour) remarked on the instructions that the Ministry of Health issued in connection with dispensing where methylated spirit was ordered. He gathered that some preparations could not be made in a pharmacy on account of the expense of spirit.

Mr. HUMPHREYS JONES (Liverpool) desired that the address should be reprinted and sent to every pharmacist on the register. He believed in training the apprentice in the way that he should go from the very first day of his entering the pharmacy. The process of dusting could be of interest.

Mr. J. JACK (Arbroath) said that there seemed to be a great deal of idealism both in the opening address and in the words of some of the speakers. He wished them particularly to consider that a boy is trained for his own benefit and also to help to make a living for his master. He did not believe in apprentices being taken in a shop where there were four or five assistants. It was now possible to get good apprentices, well educated, but what were likely to be the results with boys brought in at eighteen years of age? He was not in favour of wholesale houses being recognised as training centres for retail chemists at all. He thought that they should aim at the bachelor of pharmacy degree.

Mr. W. H. LIGHTBOWN (North-East Lancs) said that he did not think that apprentices should be encouraged to take their Preliminary Scientific examination before going into the shop. By doing so they lost a part of their training which counted for most—that was, the first year's training. If they did not get that until they were nineteen years old, they were then too old to start. The present generation at eighteen or nineteen would turn up their noses at such details as washing bottles and cleaning mortars.

Mr. W. BROWNE (West London) said he believed that the best training of the apprentice was in the old-

fashioned business. He did not believe in more than three years' apprenticeship, and he thought that a youth who had passed the London Matriculation examination and Part I before he went into the business had a considerable advantage over any others. He regarded the recording of everyday work in the pharmacy as a very excellent method.

The SECRETARY (Mr. H. N. Linstead) said that there was considerable difficulty regarding the inspection of individual chemist's shops, as to finding out whether they were suitable for training apprentices. It would be well if the branches could try out schemes in their various areas, quite experimentally, and after seeing how they worked, report to headquarters. Any reasonably working scheme would be welcomed by the Council. With regard to the training in the wholesale, the new Major examination was really introduced to provide a type of man needed for them, and it was for that reason that the practical training period was cut down from 4,000 to 2,000 hours. He could not help feeling some doubt as to whether it was altogether desirable for a man to have no shop training at all even if he intended going into the wholesale. He thought the wholesale houses must appreciate the value to them of qualified people on their staff who understood the point of view of their customers. That experience could be obtained only in the shop. He could quite see that by insisting on higher educational standards it was making it difficult for the chemist in the country to get apprentices. One way in which the difficulty might be got over was to take as an apprentice one who had got through his Preliminary Scientific examination. He referred to the increase in the number of registered apprentices, which were likely to be this year well over 2,500. It seemed likely to be difficult to absorb all these, and said that it might be worth while considering whether in the course of the next three or four years, after adequate notice, the preliminary standard ought to be raised to matriculation.

Mr. H. HODGSON (York) drew attention to the advantages of apprentices attending local part-time classes, and to the value of methodical training.

Mr. G. V. TYLER (Leicester) said, as one connected with the manufacturing side, that it would be very much better when all had received a similar training; it seemed to him that it was possible in the present circumstances to have bachelors of pharmacy, with no common interests in retail pharmacy at all, and liable to form a separate body.

Mr. J. READ (East Metropolitan) considered that it was most desirable to know that all wholesalers were qualified chemists. Those who manufactured the stuff were certainly the men who ought to qualify. Then there was the drug-store evil. Just as apprenticeship is tightened up for chemists, so is made greater the flow of unqualified elements into the shop.

Mr. E. B. WARD (Leicester) related how a scheme of education had been working in Leicester. They had made it incumbent on the principal to give time during the ordinary working hours of the day for the apprentice to attend the classes at the College of Technology, on three half-days in the week. Two of the half-days were taken out of the master's time and one half-day out of the time of the apprentice. Their record of passes at the College was very much above the average for the year. He demurred from a statement that for the first twelve months an apprentice should not commence his studies for the Qualifying examination. It was essential that continuity of study should not be broken. He did not consider that two years was sufficiently long for apprenticeship. When fees were paid at a technical school for training an apprentice, it was advisable that these should be paid by the principal, as it then enabled him to have a voice as regards the studies.

Mr. M. MELDRUM (Ayr) said that he did not see that there was any serious objection to a man who was following out a wholesale career putting in only 1,000 hours in a retail pharmacy, but he would object to any man qualifying for the retail with even 2,000 hours' training in the retail shop.

Mr. F. WOKES (Liverpool) said that in Liverpool they counted on the matriculation being made the minimum standard for the Preliminary, but he could see that there might be a difficulty in obtaining apprentices. With

regard to an examination of shops in order to see into which apprentices could be taken, he considered that it would be very undesirable to have such inspection.

Mr. J. CLEWORTH (Manchester) considered it serious that they should arrive at the stage when 2,500 apprentices were likely to be registered in a year. What were they to do with them all?

Mr. J. ASPELL (Bath) said that he had found it a very excellent practice with apprentices to combine business training with the dispensing side, so as to make it more interesting to them, rather than to keep them at routine work. In one week he would allow them perhaps to receive stock, send up invoices, and another week to be continuously on the dispensing counter, and so on.

Mr. SIMMONS, in reply, said that he did not object in the training to apprentices being put to a hard task for a limited time, but he did object to their having such work for a period of four or five years. While there was much in favour of a youth having passed the Preliminary Scientific examination before pupillage, he would not advocate it being made compulsory, because students themselves found conditions varying so considerably in different areas. With regard to training in wholesale houses, it was the settled policy of the Council that institutions should be allowed to train pupils for the Chemist and Druggist Qualifying examination. If the men in wholesale laboratories were allowed to count the time spent there as part of the allotted hours, they would remain in the wholesale trade, and advantage would be obtained of their membership of the Society. He quite recognised the difficulty with regard to the inspection of shops. It was a problem that would have to be thought out, and might well occupy the attention of the branches. He did not believe in a two-years' apprenticeship. The trouble in the past was that youths had come in without even an apprenticeship or with the lowest standard of knowledge required, and had not subsequently been able to pass technical and scientific examinations.

A vote of thanks to Mr. Simmons was carried by acclamation.

League of Ex-Service Pharmacists

Mr. P. F. ROWSELL proposed the following resolution: "That the attention of the public be called to the fact that the dispensaries of large military hospitals are in the subordinate charge of non-commissioned officers of the Royal Army Medical Corps who have not passed the Qualifying examination of the Pharmaceutical Society of Great Britain, and that these unqualified non-commissioned officers have direct custody of dangerous drugs and poisons and dispense medicine containing these articles." The resolution was carried unanimously.

Good's "History of Medicine"

THE "Four Points" of the Pharmaceutical Society, recently discussed in the correspondence columns of THE CHEMIST AND DRUGGIST and elsewhere, seem to have turned some attention to the foundations of organised pharmacy. So far as one can recollect, there has been no prosecution of any pharmacist for compounding "any Medicines of the British Pharmacopoeia" not in accordance with "the Formularies of the said Pharmacopoeia." It was because of the extensive malpractices in this respect that "The General Pharmaceutical Association of Great Britain" came into existence in 1794. An account of the steps which led to the formation of this body was written by John Mason Good, and his book, which was published in 1795, was made use of by Jacob Bell in his "Historical Sketch of the Progress of Pharmacy in Great Britain," which was extended by the late Professor Redwood and appeared in book form in 1880. John Mason Good's little volume is rather rare. The title page is interesting and gives a good idea of the contents: "The History of Medicine as far as it relates to the Profession of the Apothecary, from the earliest Accounts to the present Period; The Origin of Druggists, their gradual Encroachments on Compound Pharmacy, and the Evils to which the Public are from thence exposed: as also from the

unskilful Practice of Ignorant Medicasters, and the Means which have lately been devised to remedy those growing abuses. Published at the Request of the Committee of the General Pharmaceutical Association of Great Britain," London, 1795.

PHARMACY IN 1795

Good has much to say about the deplorable state of pharmacy in his day and of the ignorance of the druggists, and he does not refrain from indicating the localities from which his dreadful examples are drawn. It is from his book that we learn it was at Worcester that the druggist practised, who sent round the city to find the "tinct. ejusdem." But, to return to the question of the pharmacopoeial formularies, he has the most drastic things to say about Manchester. "There is not," he says, "perhaps, a single druggist in the whole kingdom who compounds his different preparations, in all respects consistently with the college dispensatory, but the druggists at Manchester appear to excel all others in such nefarious ingenuity, and to extend the endeavours to save trouble and expense to articles in which it could be scarcely imagined such endeavours were necessary. An ingenious correspondent, who dates from this town, has obliged the committee with a copy of some few of these elegant succedanea." "Succedaneum," Mr. H. W. Fowler ("Modern English Usage") seems to think, might be regarded as a superfluous word. It has passed out of pharmaceutical use, but it has a flavour which is less harsh than "substitute," and may still find a place besides "quid pro quo," which was an officially recognised "substitute." This letter from Manchester, which tells of these euphemistically designated succedanea, is worth quoting from. It may strike an answering chord in the memories of some of the older generation of pharmacists. "I have," writes the committee's correspondent, "a copy by me of the different forms for the official preparations of a druggist of this town, whose shop is much frequented for the composition of prescribed medicines. . . . The following are a few out of the many of the like class, and the words of the recipes are here copied:—

UNGUENTUM LAPIDE CALAMINARI

Lap. calaminaris	...	...	...	lb. vij.
Axung. porcin.	...	...	...	lb. xiv.
Emp. diachylon.	...	...	...	lb. ss.

[It should have been prepared with ol. olivæ and cera flav.]

SPIR. LAVENDULE COMP.

Flor. lavand.	...	...	...	3vj.
Nuc. mosch.	...	...	...	3ss.
Cam wood	...	...	...	3ijj.
Sp. vini ten.	...	...	...	lb. vj.

SYR. PAPAVER. ALB.

Opium	...	...	...	3jss.
Aq. font.	...	...	...	Cong. iss.

Boil down to lb. vij., add sacch. com. lb. xij., boil for half an hour.

LINIMENT. SAPON.

Sapon. hispanic.	...	...	...	3vj.
Sp. vin. ten.	...	...	...	Cong. j.

Boil for an hour and a half, then add

Camph.	...	...	...	3j.
Ol. rorismar.	...	...	...	3ss.

Manchester, July 31, 1794."

The quaintness of the directions for the last-named are perhaps the most striking feature.—HISTORICUS (3/5).

COMMERCIAL TRAVELLERS' CLUB PROJECT.—An influential committee has in hand a project for the formation of a London commercial travellers' club, fitted with writing, consultation, stock, billiard, committee and other rooms, café, restaurant, etc., that will form a desirable rendezvous for commercial travellers, buyers, managers and principals. A society to carry out the project is being formed, with a capital of £5,000 in £1 shares. Copies of the prospectus and further particulars can be obtained by addressing a postcard to the Secretary, British Commercial Travellers' Club Committee, Anderton's Hotel, Fleet Street, London, E.C.4.

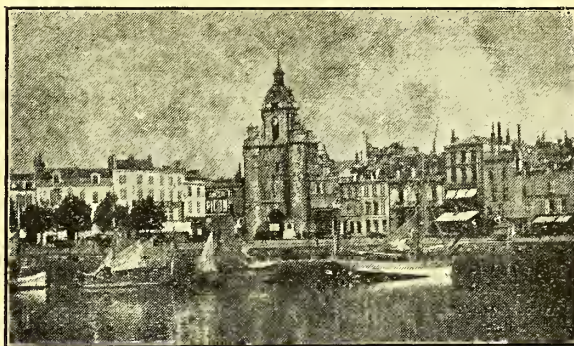
A Voyage in Vendée

THIS summer journey of a peripatetic pharmacist, although started and ended in the Vendée district of France, also included a portion of Poitou and Anis, the route taken being from Nantes, down the valley of the Sèvre Nantaise, through Clisson to Parthenay, and thence to Poitiers; then a westward turn to Lusignan, Niort, and La Rochelle, and finally a northward track through Marans and Luçon, following the coast and visiting the seaside resorts of Les Sables d'Olonne, St. Gilles-sur-Vie, St. Jean-de-Monts, Pornic, and thence back to Nantes. La Vendée itself is divided into three areas—the Bocage, sometimes called the Vendean Alps, the Plaine, and the Marais or marshes—and each area exhibits characteristics of its own, the Bocage wooded and with small hills and valleys, the Plaine a rich agricultural country, and the Marais interspersed with waterways and reminding one of the Fen country with its dykes. The scenery may not be so striking as that in some other parts of France, but it has a picturesqueness and colour all its own, and the district is rich in historical interest; the wars of the Vendée, the battle of Poitiers, and the siege of Rochelle are familiar to everyone. The weather at the time of my visit was all that could be desired, sunshine all day long; and this is the usual rule in the summer, although this year, to the surprise of the inhabitants, they had had a very wet spell—indeed, one good lady told me that the oldest villager could not remember such rain, and they were very concerned about the vines, corn, and potatoes. One result of the wet so late in the season was that the river Loire, which at this time of the year is usually a few small streams between long reaches of sandbanks, this summer was in flood, the flood water stretching for miles. The roads in this part of France are considerably better than in the northern districts or nearer Paris, being mostly good hard macadam, with occasionally a tarred surface, and a complete absence of the pavé through the villages which is such a terror to road users in Normandy. The villages, too, are distinctly cleaner, the cottages whitewashed and with green painted persiennes, and free from the piles of refuse and pools of stale water too often seen in other parts. In the Marais district there are long stretches of straight, flat roads, and altogether there are few hills worthy of the name; one or two were dignified locally by the name of *côte*, although they would not be so designated elsewhere. The hotels, as is invariably the case in France, are good and clean, and the meals excellent; the prices seem ridiculous to our idea, a room averaging from 15 to 20 francs a night, breakfast 3 francs, lunch and dinner 12 to 14 francs (at some places wine included, at others charged 2 to 3 francs); the usual 10 per cent. is added for tips, and at the seaside resorts a small "taxe de séjour" is put on the bill.

FROM NANTES TO NIORT

Nantes is a very large town, mostly industrial and commercial, with large shipyards, and is not exactly interesting to the tourist, the principal thing to see being the cathedral, the west front of which at the time of my visit was covered with scaffolding and undergoing extensive repairs—in fact, many of the churches seen during the trip were being cleaned or restored. Curiously enough, one of the most striking buildings seen in Nantes, viewed from the Place de la Duchesse Anne, and looking across a bridge over the Loire, turned out to be the biscuit factory of Lefèvre, whose products are as well known in France as those of Huntley & Palmer are in this country. Continental towns, especially the suburban and residential quarters, always seem bare and hard to an Englishman, as there are never any front gardens, the houses being built right on the pavement. The road to Clisson straggles out through several kilometres of such suburbs before reaching the country; but it is an easy journey over an undulating *route nationale*; Clisson is a pleasantly situated little town, with a fine view of the old château on a little hill overlooking the river Sèvre, the industry being cloth manufacture. The next town of note was Parthenay, having a fine old bridge with a massive gateway at the end of it; but

nearly all these towns are fairly modern, as many of them were burnt down during the Vendean wars. From there to Poitiers, another large place. The interior of the cathedral, although plain, gives one an impression of unusual vastness; there was an afternoon service going on, and not a single soul for a congregation except the casual visitor, a foreigner. The old church of Notre Dame de Poitiers in the market place had all the interior columns painted in various designs and colours, giving it a striking though rather bizarre appearance; in this, as in many other churches, notices were posted stating that in view of the modern fashions ladies insufficiently clothed would not be admitted to the sacraments. In Poitiers I also saw a wonderful example of manual labour, the huge blocks of soft stone used in building operations were being sawn into shape by hand, a saw about four feet long with a handle at one end being wielded by one man who cut through a few inches from one side and then went round to the other for a few more until he had finished his task. On the trip, however, Poitiers was chiefly noted for the discovery of a pâtisserie which provided excellent five o'clock tea, accompanied by some of the choicest cream pastries yet found in France, which is saying a good deal. After leaving Poitiers, the road leads through Lusignan, another old town standing on a hill, as most of these places do—reminiscent of the troublous times in which they were built; here the château had disappeared, to be replaced by shaded walks called Les Promenades. Poitou is noted for its donkeys, and there are plenty to be seen on the



PORTE DE LA GROSSE HORLOGE, LA ROCHELLE

roads and in the villages; cattle are also used largely for beasts of burden, and it is a common sight to see two or more yoked together dragging a farm cart or working in the fields; it is not uncommon to see a mixed team, such as a donkey and a cow, harnessed to the same cart. More modern types of conveyance seem to be divided chiefly into Renaults and Citroëns, which largely outnumbered all other makes met on the road. Then on to Niort, possessing one of the largest town squares I can remember; this town was reached on a Sunday evening, and there had been some motor races in the surrounding district during the day, so that dinner was accompanied by the deafening noise of unsilenced exhausts.

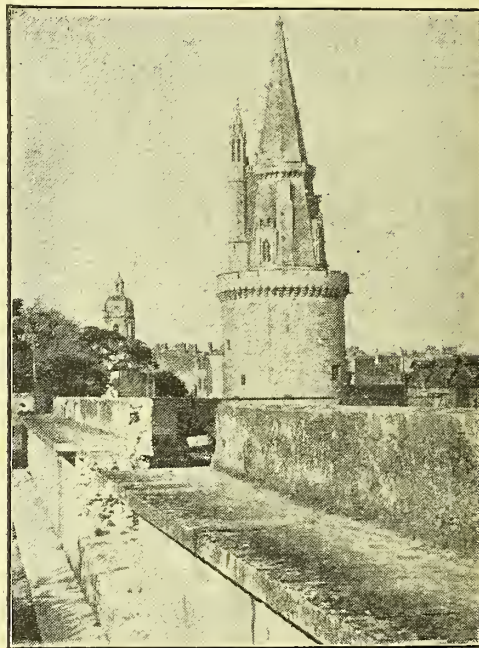
And then to La Rochelle, from the point of view of quaintness the gem of the tour, remaining the same as it must have been for hundreds of years, the houses built right out to the kerbstone with arches over the pavements giving the shops the appearance of being in arcades, this for the heat of the sun. The façade of the town hall is particularly fine, and the two old towers remain at the entrance of the little harbour, which is used by fishing boats and the small steamers which ply to the several islands off the coast and afford pleasant excursions, the modern traffic going to the new port of La Pallice, five kilometres away, which is being developed on a huge scale. A tram runs between the two places, and is peculiar for the fact that on reaching the terminus the driver and conductor get down and, putting their backs against the side of the tramcar, push it round bodily on its own axis, the wheels remaining at rest on the lines, ready to start the return journey. An indication of the cosmopolitan nature of the users of this port was given by

the notices being posted up in French, English, Italian and Spanish. There is a good service of motor buses from Rochelle to the outlying country, these vehicles being very large single-deckers, and taking besides passengers all sorts of luggage and goods, and having an official post-office letter box on the side for the village posts: there is also a system of combination amongst the farmers, motors, and in the marshy areas boats, collecting milk and other produce on co-operative lines. After leaving Rochelle the road ran right through the centre of the marshes to Marans, and thence to Luçon on the other border; among other things were noted the osier beds, the salt pans where the sea water is evaporated by the sun to collect the salt, and the quaint flat-bottomed boats which serve the purpose of conveyances for people, milk, hay, furniture, or indeed anything. Here they cultivate edible snails, which were served up as a delicacy at several hotels, and they seem to be well liked, one well-fed farmer next to me one day getting through quite forty of them; they say the snails have a delicate flavour, but I could never summon up courage to try them, as I had seen them in the market, alive and crawling out of their shells, about two inches long, with two horns; they are served up cooked with small two-pronged forks to dig them out with. Next on to Les Sables, or the sands of Olonne, a modern seaside resort tacked on to an old fishing town, noted for sardines, oysters and mussels; here were served sardines freshly fried, a very different dish from the one we are familiar with in tins; the fishing nets and the stones used to sink them are all dyed a sea-blue colour. The *sablaises* or fisher girls wear a striking costume with short skirts, patent clogs, and elegant white head-dresses, known as butterflies from their shape, and fine figures they make walking upright and swinging from the hips through carrying the fish baskets; indeed, all the population of this part strike one as a particularly handsome and well-built race, both women and men. The front here is nearly two miles long on the promenade, with sands as far as one can see, while further north at St. Jean-de-Monts there are twelve miles of sand without a pebble to break its evenness. This last little place is an ideal spot for a rest holiday—bathing, boating, sands and pine forests and entirely unspoilt by the usual seaside amusements; and the Hotel de la Plage provides excellent meals and rooms overlooking the beach at prices unheard of in our dearer English resorts; altogether, the place in which a tired pharmacist could enjoy the sun all the summer if only business would allow. At one of these small towns I stopped to ask a gendarme the way to the hotel, and he asked me if I was a commercial traveller; on my replying that I was not, but that I was on holiday, he asked my nationality; receiving the reply, "English," he solemnly shook hands with me in the middle of the street, after which evidence of my respectability, the whole population would have shown me round if I had so wished.

MANY NEW HOUSES

Not far from here, near Beauvoir, is the Passage du Goua, a road four kilometres long, which joins the mainland with the island of Noirmoutier, and can only be traversed at low tide, being submerged at high water; a détour can be made by taking this road and then crossing the island to the town of the same name, from which a boat runs to Pornic. This last place is better known than St. Jean, but, in my opinion, not to be compared with it for a holiday, as although more picturesque (owing to its situation) it has only a very small and cramped place about a kilometre from the town. There is plenty of building going on even in these parts, most towns having a growing fringe of small villas and bungalows; cement plays a large part in constructional work, houses, bridges, bathing huts, and also railings and verandahs, all being made of cement, in many instances being moulded to imitate rustic work. It is difficult to compare these houses with ours owing to the difference in design, but judging by the accommodation in one I saw which was priced at £250, I doubt whether £600 would buy one of the same size in this country; nearly all the houses were named, the names generally being prefixed by the word Ker, such as Ker Maurice, Ker being the Breton for

villa. Many of them were named after flowers or trees; one was called "Les Ergots," which naturally caught a pharmacist's eye, and another was entitled "Ar Hoat," and I wondered whether it was another Breton word, or the phonetic rendering of Our Hut. This part is distinctly Breton in dress and customs; the women wear their white head-dresses, and, I believe, an expert can tell where a woman comes from by the pattern she wears, while the men wear the short cape coats and round velour hats. One day I met on the road no less than three weddings, walking in procession two and two, bride and bridegroom first and then their relations in order of merit, in each case the bridegroom lifted his hat to me, the returning salute of a stranger presumably bringing luck on his wedding day. The people generally seem to have a much longer working day than ours, being at work in the fields before 6 a.m., and the towns in full swing at that time; and they are certainly on a much lower scale of living, most of the cottages in the country being one story only, often with one room, containing a large bed, a table, and little else. One of the hardest ways of existing, I should imagine, is that of the travelling showmen, of whom one meets many on the country roads in France,



TOUR DE LA LANTERNE, LA ROCHELLE

passing from one town to another for the fête days in their caravans, frequently with straw or hay on the floor of the van to sleep on, and earning a precarious livelihood by walking the tightrope or some other performance on the market square. One girl I saw walked a rope stretched over two poles and high above the bandstand in the Grande Place, with no net to catch her or any safeguard if she fell. There was a great outcry at the rise in the price of bread during my visit, it having advanced to 2.45 francs a kilo; but wine is very cheap, 1.75 francs a litre for the vin ordinaire in the shops, and butter was 12 francs a kilo.

SOME DISTINCTIVE PHARMACIES

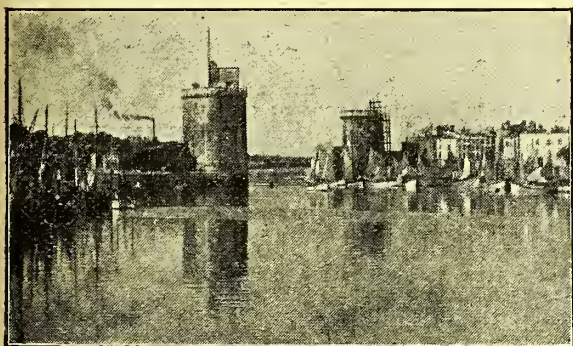
The pharmacies in this part of France are of the usual type to which one is accustomed in that country, very little window display, just the low window enclosure, with sometimes a few patents or one or two jars of drugs or chemicals; in fact, one could go back to one's days of recognition of materia medica specimens, for I noticed displayed, amongst other things, nux vomica, aconite, sem. lini, cort. cinchona, pot. permang., pot. bicifrom., and cupri sulph.; in one case some vanilla pods in glass tubes were for sale, one pod in a tube costing 3.75 francs. One pharmacy in La Rochelle was rather

striking, having a double front, the two window enclosures and the front of the shop being decorated in black and gold, with a pink-coloured pharmacy jar in each window, and nothing else. At Niort the Pharmacie Centrale also attracted attention, as it was painted from pavement to eaves in a light and dark brown design, columns on the ground floor and panels above, each panel containing an advertisement; another one near by was unusual for the fact that the window was devoted to a display of Dolly dyes and Strobil hat cleaner. Referring to dyes, in Nantes I saw a demonstration of dyes for materials at a shop; the lady demonstrator had a table on the pavement with a Primus stove and a pan on it for boiling, while as I passed she was unpacking her portmanteau, also on the pavement, the passers-by having to step off into the road. In another pharmacy the window was filled with showcards headed "Plus de Punaises." Cadum soap was well to the front in all towns, while in many small shops, not pharmacies, another well-known soap was advertised to be given away in exchange for a coupon. As a sidelight on the discussion of our proper title, a Nantes pharmacien, wishing to attract English custom, displayed a sign "chemist," not "pharmacist," although the latter corresponds more to his own. There seemed to be more girl assistants in this part than I have noticed elsewhere; one pharmacy in Nantes, which from point of size was small to our ideas, yet was doing a brisk business, had three girls and one man besides the proprietor, one girl being at the weighing machine

speaker, the "T.S.F." being the owner's hobby; he tuned in London for me, but it was spoilt by Morse interference, which he said was the usual case, "Toujours les dépêches"; he also complained that London and Daventry always had the same programme. His aerial stretched right across the village street, the other end being attached to the ruins of the old château, as was also the counterpoise, which he preferred to an earth. This gentleman seemed to take pharmacy very easily, as he had just returned from a morning's excursion in the country, and was dressed in sporting costume, while his two *chiens de chasse* lay on the floor of the shop. The desk for the prescription-book was in the centre of the shop in front of the counter and in full view of the customers, and over it a card was pinned bearing in large letters the word "Prudentiam," which I took to be his private mark; the book, of the regulation printed type, had a column of red about one inch wide right down the centre of the page for the entry of poisons. Noticing a shop round labelled "eau de Cologne," I tried some on my hand in the usual way and found it good—which pleased him greatly, as it turned out to be his "spécialité." Incidentally, at this same town, after lunch at the hotel, when coffee was served, the waitress placed with it a large cut-glass bottle holding quite a pint of colourless liquid, and on my asking what it contained she said "eau de vie"; it looked and smelt exactly like s.v.r., and as it was left to help oneself I could imagine some customers getting very merry.

BUSINESS CONDITIONS

Most of these pharmacies make their own galenicals; one man told me that he made all his own tinctures except "laudanum de Sydenham," and that was on account of the extremely high price of saffron, but they use many more syrups than we do. He also complained of the growth of specialities or proprietaries; a doctor came in while I was there, and after he had left the pharmacien told me that a few years ago he wrote nothing but "straight" prescriptions, whereas now he averaged 75 per cent. of specialities. Set against this, medicinal preparations can only be sold by a pharmacist; even a medicated soap may not be sold in any class of shop as it is in this country. Further, a pharmacist can only own one shop, and he must be there to conduct it personally and have his name on the labels, etc.; if he wishes to buy another pharmacy, he is compelled to close or dispose of the first one; the gentleman with whom I discussed these matters produced a small book in which all these regulations were printed in concise form, so that there was no doubt as to what the law really meant. This rule of single ownership effectually cuts out multiple shops; but it evidently does not apply to other trades, as a series of shops known as the Docks de l'Ouest, selling provisions or *produits alimentaires*, advertises 500 branches. In the pharmacies the shop bottles of drugs with the green label "dangereux" are kept on the open shelves with the other shop rounds, the poisons in the poison cupboard, and cocaine, etc., in the cupboard with a lock. The hours seem to run, as a rule, from 8 a.m. to 7 p.m., and further south they close from mid-day till 2; but even in France they have the customer who complains, as I heard one man in a hotel grumbling that he had been out at half-past six that morning and had not found a pharmacy open. In the larger towns they have a rota system on Sundays, and in Nantes the names of the pharmacists on duty were advertised in the local paper; but in the smaller places it is a seven-day week, and many of the men were very bitter about it. Much of the wholesale work is done direct from Paris; but in Nantes I came across premises, entitled Société des Pharmaciens, which turned out to be a local supply for proprietaries and sundries. Prominence was given in the papers while I was there to the traffic in the *cartes médicaux*; these are issued to *les mutilés* (disabled soldiers), and are cards for medical treatment printed in three sections—one for reference, one for the doctor, and one for the pharmacist. Apparently some doctor had been issuing them too freely, with the result that he and the pharmacist who accepted them were both imprisoned. Drogueries sell paints, varnishes, artists'

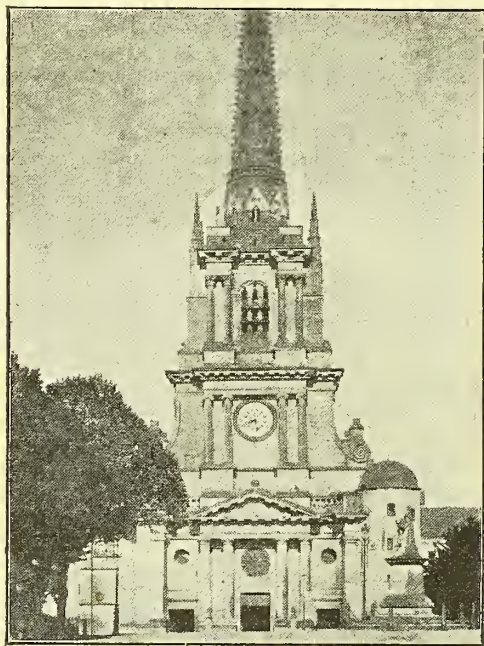


THE PORT, LA ROCHELLE

all the time I was there, the charge for weighing being 20 centimes. Another thing new to me in Nantes was the fact that two or three pharmacies advertised homœopathic remedies. One very neat pharmacy I saw at Parthenay was fitted in light oak, both inside and out, and through a door at the back of the dispensing counter I could see that the pharmacien was a collector of antiques, for there were neatly arranged pharmacy jars, old armour, etc. Madame sat at the desk, and beside her on the counter was a large cushion on which reposed the smallest of toy Poms; this was also an innovation, as the usual pharmacy pet is a cat. This pharmacy undertook optical work. Another window at St. Gilles had the skeleton of a small whale found on the beach as a window display; the owner of this establishment kindly showed me his laboratory at the back of the shop, a spotlessly clean place with a furnace for the still built round with red tiles and having an overhanging chimney which brought to mind the old chemical laboratory on the top floor at "the Square"; there was a copper still and condenser, and also a bench well fitted up for analytical work. This pharmacist told me that, besides making all his own galenicals, he did all his own analyses, but that in some of the larger towns the pharmacists combined to run a central laboratory. In yet another country town I was struck by seeing a window full of pots of jam, unlabelled and uncovered, and on inquiry found that it was the home-made product of the pharmacist's wife and that it had been put in the window to set—it was not for sale. In this pharmacy the best part of the front counter was occupied by a four-valve wireless set and loud

materials, pails, etc., and their display reminds one of some of our drug stores; while "herboristeries," which strikes one as quite a good name, sell, besides non-poisonous herbs, dressings, trusses, toilet articles, etc. Babies' feeding bottles are of a round shape, known to us as French rounds, graduated but with a teat on the neck only and no valve; at one hotel a mother handed the bottle to the waiter, who brought it back filled with milk, and after baby had had sufficient milk, father gave it a drink of his wine. French coal in its natural state appears to be a coarse dust, and is sold in the form of briquettes or boules; beside one factory for these, I saw a field nearly filled up with pitch, the residue from the works poured into the field to set. In one village I was reminded of home by seeing a workman carrying a 7s. 9d. tin of Cow and Gate milk, which he had converted into a paint-pot by means of a wire handle. Photographic supplies are not sold by pharmacists, but by photographic dealers or by the general magasins.

Pharmacies are freely advertised on trams, buses, etc.; one line of motor-buses had a running board across the roof with an advertisement advising people to buy their perfume by weight at a certain shop;



LUÇON CATHEDRAL

another form of advertisement often seen in the country consists of a tall iron mast with four revolving wings on the top, which turn with the wind and on which the advertisements are painted; use is also made of the stamp paper edging to advertise on, and one lot of stamps I bought had an advertisement for a familiar soap and dentifrice all along the edge. Most of the men I spoke to complained of the instability of prices due to the fluctuation of the franc. In various places I noted the following prices of interest to pharmacists:—

Tinct. iodi	...	...	30 grams for	fr. 3.50
Glycerin	...	...	30 grams for	1.50
Ear-sponges, each	...	...	...	0.95
Tooth-brushes, each	...	...	...	6.50 to 8.75
Vichy water, per bottle	...	...	...	2.50
Medicated soaps, per tablet	...	...	...	2.0

These last included a series of various kinds, carbolec, ichthyol, sulphur, balsam of Peru, etc.; and when it is considered that at the time of which I am writing the franc was worth just a fraction below three-halfpence, the above charges cannot be classed as exorbitant.—
PHARMATOURA (22/7).

British Association Meeting

(Concluded from C. & D., August 14, p. 303)

The following are the chief points of interest in the latter sectional meetings of the Association:—

THE ORIGIN OF SPECIES,

which was the subject of controversy in 1860, found again new themes for dispute. In the Presidential address by Professor F. O. Bower on August 5 it is stated that cytological evidence (from the reduction division of chromosomes) showed that sexuality may have arisen independently in animals and plants, and, indeed, more than once, independently in plants. Professor H. Osborn, who gave the opening address to the Zoology Section on the same date, said the newer knowledge showed that species did not originate by the inheritance of acquired characters or the survival of fortuitous variations which happened to be adaptive. It confirmed Weismann's sharp distinction between germinal specific characters and bodily adaptations to environment and habit. The modes by which new species arise were on the whole continuous, determinate, and on the whole adaptive. Species in the making (or the process of "speciation") had been independently discovered among fishes, amphibians, reptiles, birds, and mammals. Geographical isolation with enforced physical or chemical change, enforced change of habit, enforced competition with new environment, all constituted a new stimulus to the germinal energies themselves. This was the chief known cause of adaptation, but how the complex of causes acted on the germ plasm was unknown. Speciation was an excessively slow process, 40,000 years, the period since the last glaciation, being required to produce a new species or sub-species. A joint discussion on *The Conception of a Species* was held by the Geology, Zoology, and Botany Sections on August 10. Whereas in palaeontology it was held that the genus must be the unit with a species a fixed point in a plexus, cytology came forward with a definition stated by Major C. C. Hurst that "a species is a group of individuals of common descent with certain constant characters in common represented in the nucleus of each cell by constant and characteristic sets of chromosomes." All the phyla examined so far, numbering 2,845 species of plants and animals, show remarkable constancy in their specific sets of chromosomes.

TISSUE CULTURE

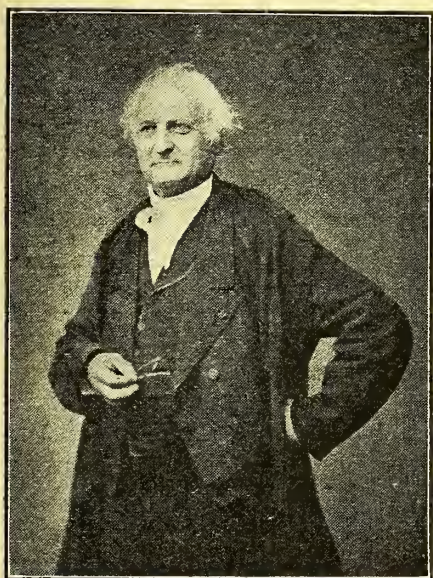
Owing to the growing importance of this subject, which has an intimate connection with the cancer problem, it was the subject of a joint discussion between the Physiology and Zoology Sections. Mr. J. G. H. Frew outlined the difficulties of the subject, including those of obtaining sterile tissues and body fluids, and the rapid chemical and physical changes which occur in fluids in which cells are growing. The curious fact has been ascertained that embryonic tissues of insects will only grow successfully in fluid taken from another chrysalid at a slightly later stage. This research worker is abandoning tissue culture itself temporarily to conduct an extended investigation into the changes which occur in the body fluid during metamorphosis of the pupal period of the blowfly. Miss H. B. Fell described results of cultures *in vitro* of fragments from the embryo of a chick incubated with embryo extract and a relatively large quantity of plasma. The growth is often at normal with cells degenerating, but in favourable cases there is a remarkable amount of differentiation, showing small portions of an embryo have a large power of determining their own growth in the absence of any connection with an animal organism as a whole.

Mr. R. Campbell Thomson discoursed on Science of the Assyrians in the seventh century B.C. to the Anthropology Section on August 6. It was held that the readiness of the Assyrian and Babylonian doctors to tabulate everything is a good indication of their scientific capacity. They had a knowledge of some 250 plant-drugs, which reappear in their medical recipes. Several chemicals are found in their manuals of glass-making, and it would appear they anticipated the purple of Cassius, and even had a method of making Aventurine.

Balard's Discovery of Bromine

At the meeting of the French Academy of Sciences on July 3, 1826, a communication was received from Professor Bérard, Montpellier, on a new substance, now known as bromine. "I still remember," says Jean-Baptiste Dumas, "with what curious eagerness the little sealed tube was passed from hand to hand containing a sample of the novelty, discovered in the heart of provincial France, by a young pharmacy assistant, not as an ordinary chance result, but as the legitimate fruit of scientific method. It was an event." Dumas's reference to Balard as a "jeune élève en pharmacie" is not an exaggeration. M. Massul, Dean of the Montpellier Faculty of Pharmacy, informs me, writes our Paris correspondent, that Balard's diploma is dated July 5, 1826; and that he remembers as a boy the inscription, "Ancienne Pharmacie Balard," over a shop front in the rue de d'Aiguilleries, still one of the principal business streets in the ancient quarter of Montpellier. But this could only have been opened (or taken over) in 1827, as Balard did not until that date obtain the legal age for keeping open shop. He was born on the outskirts of Montpellier in 1802, the son of a vine-grower in poor circumstances; and it was only owing to the liberality and affectionate interest of his godmother that he received a secondary education and was apprenticed to a pharmacist. He attended Bérard's lectures on physics and chemistry at the historical

iodine. He found it also in the concentrated liquid which remained in the salt marshes when the sea-water had evaporated and the salt crystallised. By gradual additions of chlorine he isolated the iodine. But the liquid assumed a yellow tint. Other chemists had noticed this, but there they stopped. Balard went on; slowly and painfully, having no means to purchase apparatus. He treated the aqueous solution with ether, and put some of the substance extracted by this means into a sealed tube and sent it to the Academy. Bérard, who had followed Balard's experiments with fatherly interest, travelled to Paris two years later, as we have seen, with his pupil's notes. Gay-Lussac was deputed to examine the new substance, and gave it its present name. Liebig, G. de la Rive, Sir Humphry Davy, paid their tribute, and the Royal Society of London awarded the Royal Medal to Balard. He was appointed Professor in the Montpellier School of Pharmacy and in the local Faculty of Sciences; and was finally called to replace Thénard in the chair of chemistry at the Sorbonne. At Paris he became Professor in the College of France (Berthelot was his pupil and his preparator). But his heart seems always to have remained in the scene of his youthful triumphs. An indefatigable walker, indifferent alike to the burning sun of summer and the piercing blasts of winter, he wandered by the Mediterranean and studied the salt marshes, the spontaneous separation of soda and potash. In 1850 he announced the industrial possibilities of his discovery. But Leblanc's process of extracting soda from sea-salt, and the discovery of the Stassfurt potash deposits, rendered this valueless. Balard's fame is thus associated with bromine, and bromine alone. He kept to the last his vivacious good-natured and somewhat original character. The siege of Paris, in 1870-1, broke his hitherto robust health; but he survived, somewhat enfeebled, until March 1876. So this year sees the fiftieth anniversary of his death, as well as the centenary of his discovery.



ANTOINE JEROME BALARD, THE DISCOVERER OF BROMINE

Faculty of Medicine, and the celebrated professor in 1819 obtained for his young *protégé* the post of preparator of chemistry in the Faculty of Sciences. He was, I believe, later on preparator at the School of Pharmacy, but, curiously enough, no exact record seems to exist of his service there. Botanising was one of the hobbies of Balard's scanty leisure; and, as anyone who has resided at Montpellier can attest, few more interesting centres could be found. Southward lies the Mediterranean, only a few miles from the old University city, a hundred miles of flat coast interspersed with great lagoons—a bare, desolate district where Balard made the discovery which led him to fame. The sea and the inland lakes being in close proximity, he found the same flowers on the margin of each. Some plants, he noticed, sometimes grew in fresh, sometimes in brackish water. Just then everyone was still talking and thinking of the recent discovery of iodine. Balard examined the molluscs, the polypi, and the plants, all of which he found contained iodine. Next he analysed two similar plants, one growing in fresh water and one in brackish. Although absent in the former, iodine was present in the latter. Thus it was established that the Mediterranean contained

Bankruptcy Reports

Re Josephus Teague Barrett, "Razmak," Park Road, Watford, retired pharmaceutical chemist, lately trading at 68 Queen's Gardens, London, W.2.—The first meeting of creditors was held on August 18 at 29 Russell Square, W.C.1. The official receiver reported that the debtor had lodged a statement of affairs which disclosed liabilities £450, all of which was due to unsecured creditors. The assets consisted of cash at bank £18 13s. 10d., and other property £57, making a total of £75 13s. 10d. A resolution was passed for the appointment of Mr. A. C. Vincent, 13 Queen Street, E.C., as trustee of the estate.

Re Eli Morris Rosenthal, 35 Oxford Street, London, W., lately trading as "The Pulehrit Beauty Powder and Toilet Perfumery Manufacturers." This debtor attended on August 17 at the London Bankruptcy Court for public examination upon accounts showing total liabilities £2,777 (unsecured £2,277), and assets "bad debts, £592." Replying to the official receiver, the debtor stated that in April 1925 he purchased for £4 the recipe for the preparation of a face powder, together with a stock of the powder, and took premises at 35 Oxford Street, where he traded under the above style until April 15, 1926, when he sold the business to his wife for £400. He attributed his insolvency to the failure of a company in which he had invested capital, and to heavy interest on borrowed money. The examination was adjourned for the debtor to supply cash and goods accounts.

"BUBBLES MAGAZINE."—The current issue of "Bubbles Magazine" (A. & F. Pears, Ltd.), announces that the restoration of the entrance hall at 71-75 New Oxford Street, London, W.C.1, is now complete, and an invitation is offered to inspect the Roman bath and statuary. Mr. Robert Pears contributes a number of recipes taken from a notebook of his great-great-grandfather, kept in 1809-18. Other articles include "A Million Replies to a Coupon," which is an account of the launching of Golden Glory soap. The illustrations, as usual, are a notable feature.

Modern Physico-Chemistry and its Pharmaceutical Applications

By W. A. Whatmough

XLII. Heat a Mode of Motion (or Ethereal Dynamics)—IX

THE working of a thermometer will help in forming rational ideas regarding heat flow and temperature equilibria. The temperature recorded by mercury in a glass thermometer is said to be that of the atmosphere, which means that the radiation it receives from its surroundings and that which it loses keeps the thread of mercury at, say, 15° C. Immersing this in hot water results in an increased flow of ethereal radiation, which penetrates both the glass bulb and the mercury, and leads to an increased vibration and separation of their constituent atoms. Since the mercury atoms are moved further apart than those of the glass; this difference in "expansion" of mercury and glass causes the column to rise to, say, 90° C. Whatever temperature is attained represents a new balance between inflow and outflow of radiation (or what is ordinarily meant by heat flow, but which is a heat exchange. To unlearn is even more difficult than to learn, and our ideas have been fixed for so long upon heat flowing from a hot body to a cold body that one instinctively rebels against the more complex conception that the two are exchanging radiation, which is actually the case. If the thermometer be hung near the blackened copper tube filled with hot water the temperature recorded will increase or decrease, according to whether it originally was at air temperature (15° C.) or at 90° C., but the mercury column will more and more slowly (see below) arrive at a common intermediate temperature (say 25° C.). Now the thermometer is still receiving radiant energy of frequency corresponding to nearly 90° C., but it is converting or degrading this into radiation and passing it along a frequency corresponding to 25° C. By bringing the thermometer closer or by concentrating the radiation with a lens its temperature can be increased, but never beyond 90° C. The temperature attained represents an equilibrium between intensity and capacity factors of the flow of (heat) energy, the latter being the number of radiators and the former the frequency with which they vibrate.

The intangibility of heat contrasts strangely with the exactitude with which one can measure calorimetrically the quantity of heat contained in a hot body. If the water equivalent of the calorimeter (which acts as a cold body absorbing heat) is known, it is no more difficult to determine the specific heat of a substance (solid, liquid or gas) than it is to find its specific gravity. [Observe, however, that both are comparative and relate to water at a known temperature, i.e., a specified equilibrium of matter in space.]

Newton's law of cooling for a hot body may be expressed as:—

$$\theta_t = \theta_0 e^{-at}$$

where θ_0 is the original temperature of the hot body (in excess of its surroundings), and θ_t its excess temperature at the end of time, t . An equation of this kind fits in with many physical processes where something is gradually disappearing (e.g., decay of radioactive emanation). In fact e^{-at} serves as a die-away factor, since it gives a rate of decrease proportional to the amount (of

heat excess, or of emanation) left to decay. The so-called constant of decrement a is determined experimentally and as regards heat flow, it includes the different conditions of thermal resistance, these varying with amount and nature of the surface, and also the conductivity and emissivity of the material composing the hot body and its surroundings. Note also that the above equation relates to the hot body only, the part played by the surroundings being taken for granted—i.e., it is assumed that the flow of heat is uniformly outwards, while heat exchanges, which are always taking place, are entirely ignored. This solution of a physical problem by finding an equation which fits facts, which in turn devises some physical constant (varying for each substance and each temperature), is a matter of great satisfaction mathematically owing to the calculations which it permits. From the point of view of practical physics it is a species of self-delusion, because it obviates the need for further inquiry into the true mechanism of transference of heat-energy and resistance to its flow (or heat insulation).

The inconsistencies of heat theories made to fit mathematical considerations could not be better exemplified than by the interpretations of the curves in Fig. 56, which represent energy distribution in the spectra of "temperature radiation," as measured by means of a linear thermopile. The curves in Fig. 56 record results obtained by Lummer and Pringsheim, who produced a spectrum of radiant "heat" by refraction of "black-body" radiation with a fluorite prism which is transparent to heat rays, including infra-red rays. The energy distribution in the spectrum thus obtained was measured as the current produced at the bimetallic junctions of a linear thermopile which was exposed to narrow bands of radiation emitted at different temperatures. (As explained in Article XL, a full or black-body radiator is regarded as emitting a complete spectrum of temperature radiation.) The area under each curve corresponds to the total "heat" energy at a particular temperature, and on inspection it is obvious that the energy distribution varies with the wave-length, increasing to a maximum about wave-length 2μ and shifting towards the region of shorter wave-length (and higher frequency) as the temperature increases. This dependence of maximum intensity of (heat) energy upon (absolute) temperature is expressed by Wien's Displacement Law.

$$\lambda_{\max} T = \text{constant} = A = 0.2920$$

where λ_{\max} is the wave-length (in cm.) and T is the absolute temperature, the value of the numerical constant (designated A) being 0.2920.

Wien's displacement law thus states that the wave-length of radiation carrying the maximum amount of energy is inversely proportionate to the absolute temperature, or, more simply, frequency and temperature are interdependent. (cf. footnote, Article XL), since frequency is the converse of wave-length. The energy (E_{\max}) carried by waves (λ_{\max}) of maximum intensity varies as the fifth power of the absolute temperature:

$$E_{\max} \theta^{-5} = \text{constant} = B = 2190 \times 10^{-17}.$$

The intensity of energy (E_λ) of a particular wave-length (λ) radiated from unit area at any absolute temperature (θ) is given with great accuracy by Planck's distribution formula:—

$$E_\lambda = C_1 \lambda^{-5} / (e^{\frac{C_2}{\lambda \theta}} - 1)$$

which at low temperatures becomes Wien's distribution formula:

$$E_\lambda = C_1 \lambda^{-5} \cdot e^{-\frac{C_2}{\lambda \theta}}$$

The above relationships are exceedingly important, because they are the basis of all modern heat theories, and are used in calculating the temperature of a luminous body or the thermal energy radiated therefrom; thus the "effective" temperature (5,920° T) of the sun ($\lambda_{\max} = 4,900\text{Å}$) derived from Wien's displacement law checks well with that obtained by Stefan's law (Article XL), assuming the sun to be a full radiator.

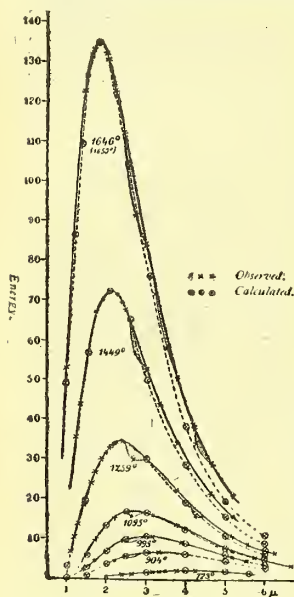


FIG. 56. — Distribution of heat energy in the spectrum of temperature radiation. (From Sheppard's "Photochemistry.")

Births

Notices for insertion in this column must be properly authenticated.

HEAZLEY.—At 16 Cregagh Road, Belfast, on August 7, the wife of H. D. Heazley, Ph.C., of a daughter.

MASON.—At 1 Goldington Avenue, Bedford, on August 18, the wife of J. Howard Mason, chemist and druggist, of a son (stillborn).

Marriages

DAYKIN—RAYSON.—At Wesley Chapel, Nottingham, on August 12, George William Daykin, M.P.S., to Alice, daughter of Mr. J. T. Rayson, M.P.S., 280 Alfred Street Central.

PIPER—ANTCLIFFE. — At St. Cuthbert's Church, Sheffield, on August 12, by the Rev. Canon Day, M.A., Leslie Piper, M.P.S., son of Mr. Albert Piper, Langley Mill, to Louie Antcliffe, M.P.S., only daughter of Mr. Herbert Antcliffe, member of the Council of the Pharmaceutical Society, Sheffield.

Deaths

GAZE.—At the London Hospital, E.1, on August 16, following an operation, Mr. Raymond Ellwood Gaze, eldest son of Mr. W. E. Gaze, M.P.S., 10 The Avenue and 27 Winchester Road, Highams Park, London, E.4, aged eighteen. Mr. R. E. Gaze passed the Intermediate Science examination of the University of London before he was seventeen, and commenced the study of medicine at King's College; last July he successfully took his first medical examination. Deep sympathy will be felt for his father in this bereavement.

GELSTON.—At Westlea, Winchester Road, Basingstoke, on July 28, Mr. Percival John Neill Gelston, chemist and druggist and optician, aged sixty-seven. Mr. Gelston carried on business at 10 Winchester Street for a long period.

HALL-EDWARDS.—At Edgbaston, Birmingham, on August 15, Mr. John Francis Hall-Edwards, F.R.S.E., L.R.C.P. Edin., aged sixty-seven. Dr. Hall-Edwards was widely known as one of the pioneers in x-ray work, a subject to which he contributed by unceasing experiment and by the publication of numerous monographs. Ever since the South African war he had suffered severely from burns, but he continued to practice as a radiologist in spite of the amputations which ensued. In 1914 he obtained a commission as temporary major in the Royal Army Medical Corps, and later he was elected to the Birmingham City Council. By a sad coincidence Mr. F. H. Glew, chemist and druggist, another distinguished radiologist, died last month at an almost identical age.

HAWTHORNE.—On August 15, Mr. George William Hawthorne, Ph.C., 285 Springfield Road, Belfast. Mr. Hawthorne, who was a native of Dunadry, co. Antrim, served his apprenticeship to the late Mr. J. C. C. Payne, Ph.C., Belfast, and passed the Licence examination in 1912. Prior to setting up in business for himself he was for several years with the late Mr. W. F. Wells, Ph.C., Dublin, and afterwards with George W. Lawson, Ltd., Limavady, and W. J. Balmer, Ltd., Strandtown, Belfast. Mr. Hawthorne was a member of the Ulster Retail Drug Trade Association, and had been P.M. of Lodge 539 and P.K. of Chapter 538. He leaves a widow and family.

SUTCLIFFE.—At Halifax, on August 14, suddenly, Mr. John Arthur Sutcliffe, chemist and druggist, 27 King Cross Street, aged sixty-seven. Mr. Sutcliffe, who had been in business for forty years, died while at his branch shop in King Cross Lane.

WATKINSON.—On August 13, after a long illness, Mr. Harold Arthur Watkinson, J.P., chemist and druggist, 149 Market Street, Farnworth, Bolton. Mr. Watkinson, who qualified in 1891, succeeded his father in business. He was a founder of the local tradesmen's association, and served on various committees in the town.

Personalities

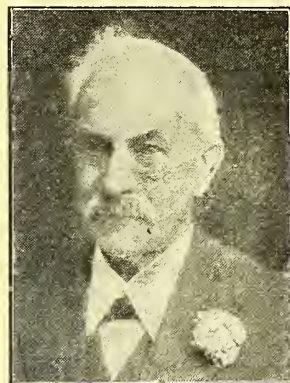
MR. C. W. DYSON PERRINS (Lea & Perrins, Worcester), has joined the directorate of Crosse & Blackwell, Ltd.

MR. A. S. HOLMES (Thomas Moscrop & Co., Ltd., manufacturing chemists), Bolton, has been appointed a magistrate.

MR. G. S. ALBRIGHT (Albright & Wilson, Ltd., manufacturing chemists), Oldbury, has offered to present an open-air swimming bath to the local secondary school.

CERTIFICATES of NATURALISATION have been granted to Benjamin Belilovsky, doctor of medicine, 55 Marsham Street, London, S.W., and to Israel Koller, chemist, 21 Queen's Road, Uxbridge.

In commemoration of fifty-three years' service with Battles, wholesale chemists, Lincoln, Mr. J. Wingate, head of the office staff, has been presented with a gold watch and chain by his fellow-workers. The presentation was made by Mr. Cyril Battle, head of the firm, who spoke appreciatively of Mr. Wingate's service and knowledge of the business. Mr. Wingate, who is retiring, recalled in his reply his apprenticeship to Mr. Peppercorn, a chemist in Guildhall Street, and said that when he came to Battles the firm had already a high reputation throughout the country. At that time the shop windows were of small panes of glass. They commenced their business as early as seven in the morning and closed the shop between eight and nine. On Saturdays the closing hour was ten or eleven. Congratulatory speeches, in which reference was made to Mr. Wingate's friendship and help to his colleagues, were made by Mr. Maurice Mucklow, chemist and druggist, Mr. Harold Ratcliffe and Mr. Ted Johnson.



MR. J. WINGATE

Wills

MR. CHARLES ALBERT BLATCHFORD, 90 Clapham Road, London, S.W., surgical appliance manufacturer, who died on April 13, left estate valued at £23,520 11s. 10d. gross, with net personalty £21,345 5s. 3d.

MR. ADOLF KENNEDY, 86 Marine Parade, Brighton, and 155-159 Kingsland Road, London, N., druggists' sundries manufacturer, who died on February 15, left estate of the gross value of £10,192 18s., with net personalty nil.

MR. HENRY RAMM PLATTIN, 222 Moulsham Street, Chelmsford, chemist and druggist, who died on July 3 last, left estate of the gross value of £3,002 4s. 4d., with net personalty £677 7s. 7d. Probate of his will has been granted to his widow, the sole executrix.

MR. JAMES OSBORNE, J.P., The Ivies, Ashbourne, Derbyshire, chemist, who died on January 11, has left estate of the value of £20,454 0s. 3d., with net personalty £17,274 1s. 6d. He gives £100 to his wife; £150 to the Wesleyan Methodist Chapel, Church Street, Ashbourne; £100 to Herbert Shaw, for long and faithful service; £30 to Jabez Rushton, for long and faithful service; £20 to Dorothy Plews; £10 each to Mary Twigge and Sarah Helen Braddock; and the residue to his wife for life. On her death he gives £200 to his daughter Margaret Fanny Bonsall, and the residue as to two shares each to his children, Harriet Louisa McTurk, Frederick Joseph, Mary Emma, Margaret Fanny Bonsall and Antill Holbrook, and one share to the children of his deceased daughter, Florence Emmeline Calder.

Trade Notes

The preparations of the Butywave Co., 10 Tachbrook Street, London, S.W.1, several of which are mentioned elsewhere in this issue, may be obtained through the usual wholesale channels.

A. BOAKE, ROBERTS & Co., LTD., manufacturing chemists, Stratford, London, E.15, have increased the number of their telephone lines in order to facilitate the transaction of a growing volume of business.

ELASTO is advertised in this issue by the New Era Treatment Co., 57A Holborn Viaduct, London, E.C.1. Used for varicose veins and relaxed conditions generally, full particulars concerning Elasto will be sent on request.

EDWARD COWEN & Co., 14 America Square, Minorities, London, E.1, have issued a neat display showcard for Darning lanolin, measuring 11 in. by 7½ in., designed in red and white letters on a pale blue ground, and holding a carton of each size of the product. It will be sent to chemists on request.

FACE "TOWELLETES."—The Toinoco Handkerchief Co., Ltd., 55 Hatten Garden, London, E.C.1, put up packets of fifty "Toinoco" paper face "towelletes" (9 in. by 5½ in.). The surface of the paper is "slightly crêped," giving it a modicum of grip in application after using complexion creams.

AYRTON, SAUNDERS & Co., LTD., 34 Hanover Street, Liverpool, have been appointed sole export agents for Africa and Australia by the Cellulose Fibre Co., Ltd., manufacturers of "Snowflakes" sanitary towels. These consist of pads of absorbent white cellulose wrapped in gauze, and are readily disintegrated.

RASPBERRY VINEGAR.—J. C. Arnfield & Sons, Ltd., manufacturing chemists, Princes Street, Stockport, have forwarded us a sample of raspberry vinegar, a product in which they have specialised for some time past. Messrs. Arnfield guarantee their stock to be prepared from this season's fruit and cane sugar, without preservative or additional flavouring. The liquid is of brilliant appearance, and mixed with aerated or plain water makes a palatable drink.

CLOSED FOR STOCKTAKING.—Burroughs Wellcome & Co., London, E.C.1, inform us that their warehouses will be closed for stocktaking on August 31, on which date only emergency orders can be executed. We learn that they are in a position to supply sodium salts of tetrabromophenolphthalein and tetraiodo-phenolphthalein for use in cholecystography. These may be obtained in gelatin capsules for oral administration or in glass containers if intended for intravenous injection.

AIDS TO WINDOW DRESSING.—The new illustrated list of window tickets, posters and showcards produced by Dudley & Co., Ltd., Holloway, London, N.7, is of interest to chemists and others contemplating displays suitable for the autumn. Among the newer lines to which attention may be directed is the Garfield paper window-valance, with own initial, which is available for any window from 4 ft. to 13 ft. long. The list, "C.D. 931," will be sent post free to C. & D. readers on application.

LAVENDER CROP.—Since our last issue went to press we have received from Perks & Llewellyn, chemists and lavender distillers, Hitchin, a large parcel of lavender flowers. The colour and aroma are excellent, giving promise that this year's essential oil will prove to be of very high quality. Messrs. Perks & Llewellyn write: "Hitchin can truly be called 'Lavender Town' just now: the fields are visited by numerous people, and the sight of acres of lavender with its continual change of colour is not soon forgotten."

"NEWBERYS' CATALOGUE."—A new edition of the general catalogue of Francis Newbery & Sons, Ltd., London, E.C.1, Liverpool and Cardiff, is being circulated, and a copy will be forwarded on request to any chemist who has not received one. In the present issue every effort has been made to provide a work of everyday utility; for example, in Part 4 (proprietary articles) the preparations containing poisons, requiring a wine licence for sale, or protected under the scheme of the Proprietary Articles Trade Association, are appropriately indicated. Coloured insets relate to alterations in prices since going

to press, special terms for bulk parcels and photographic requisites, the discount key for the latter being separate.

FURSAC PUFFS.—Solport Brothers, Ltd., 184-190 Goswell Road, London, E.C.1, have forwarded us samples of the Fursac patented powder puff, of which they are now sole licensees and manufacturers. The powder chosen by the user is placed in an inner compartment, whence it is fed by valves on to the natural fur (which is an integral part of the article). The opening or closing of the puff is as easy as tucking in the flap of an envelope, and no powder is spilt. There are three artistic models in graded sizes in Persian leather; the fourth, the "Vanity" Fursac, is of attractive silks, leather-lined. In each style the packing is tasteful and elegant, and the excellent showcard, together with an advertising campaign that is being planned, should ensure steady sales.

Keeping the Door Open

It is a welcome to any intending customer to find the door of a pharmacy wide open and inviting. In winter this is not always possible with the door from the street; but it is possible to have a door that will open easily, with handles that do not hurt the hand, so that the least possible obstacle stands between the would-be customer and his or her purchase. The door now particularly referred to, however, is the door which many customers use to bring orders to your pharmacy—that is, the telephone. Orders may be secured or lost just by telephone talk. Many a business which has been built up on service, courtesy and strict attention to details has been seriously damaged by the careless or even bad answering of the telephone. The few rules which follow may be worth copying out and hanging by the telephone for the benefit of the staff:—

(1) Answer promptly.

(2) Always speak in a clear and pleasant voice.

(3) Don't say "Hello," or "Are you there?"

Answer with your name or the name of your pharmacy, e.g., "Smith, chemist," or "Blank Street Pharmacy, Mr. Smith speaking." It is a great saving of time for everybody concerned.

(4) If you answer for someone else, offer to take any message and let him have it at the earliest possible moment.

(5) When information is required which will take time, get the name and number of the caller, so that when the information is available it can be transmitted to the person requiring it without loss of time.

(6) Listen carefully, so that no annoyance is caused by asking the caller to repeat his remarks.

(7) Make sure that the conversation is completed before hanging up the receiver.

(8) Say "Goodbye" or "Thank you" when you have finished speaking, to ensure that the conversation is completed.

(9) Be polite to the telephone girl. She has a harassing time of it, and she can sometimes be of great service.

The telephone can be an open door or it can be a door slammed in the face of a would-be customer. The value of the telephone to you is in your own hands and those of your assistants.

Information Department

INFORMATION WANTED

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated:

M/128. Cherub soothers	S/188. Peruna
S/188. Hamburg tea	A/188. Prickly Heat dusting powder
B/188. Imperial corn plaster	B/188. Universal ear caps
H/128. Maynard's Liniment	H/128. Velve (or Nelve) Cream
B/198. Nerve (electric appliance for varicose veins)	H/78. Zepy Pomade
M/128. Newall's arch support	

A QUALIFICATION FOR FIGARO.—The Turkish Government proposes to introduce a special qualification for hairdressers, who will be obliged to pass an examination before setting up in business.

Observations and Reflections

By Xrayser III

Your Educational Number

contains the usual wealth of valuable information for everyone concerned in training and qualification, not only as regards pharmacy, but also in respect of medicine, dentistry, science, optics and veterinary surgery. So far as words can make the subject clear you supply everything necessary, and that with a wonderful degree of accuracy. In the article on "Educational Problems" you rightly emphasise the fact that faulty training is the chief cause of the heavy failures at the London and Edinburgh examinations. The fault may have been in the shop, or it may have been in the school. Sometimes, probably, it exists in both; and it must not be overlooked that the fault may rest entirely with the candidate himself. It is, however, a sad reflection upon our methods of training that the majority of the candidates do not pass the Qualifying examination as a matter of course. It ought to be the exception rather than the rule for any considerable proportion of the candidates to fail to satisfy the examiners, and this, I think, is the ideal to which the Council should strive to attain.

An Hour's Oral Examination

in one subject should not be allowed. In my opinion, an examiner who takes so long to test the knowledge of a candidate must be in some way deficient, and quite unsuitable for the job. An examiner of experience has stated that a really good candidate can satisfy the test in an oral examination in five or ten minutes, though it is such a relief to come across one who is truly proficient that there is a temptation to linger with him and ascertain how far his obviously satisfactory training has carried him. I have known a well-informed candidate resent, after passing the examination, having received so little attention from the examiners, but it was obvious that the examiners had discovered quickly that he was competent. Poorly informed candidates take the longest to examine, I am told, the reason being that a conscientious examiner is reluctant to turn down anyone until he has thoroughly probed the depths of ignorance. But even in bad cases like this, fifteen or twenty minutes should prove ample to justify the examiner in coming to a decision. There are, of course, unsatisfactory examiners as well as unsatisfactory candidates, and I have learned that it is characteristic of new examiners to "pluck" freely. The trouble in such case is that, before an examiner finds his balance, some candidates may have been rejected without adequate cause. For this reason, among others, I advocate an oral test by two examiners in each subject, and one at least should be an examiner of experience.

Two Points

to which attention is directed by "Justin Lincoln" (*C. & D.*, August 14, p. 347) are of vital importance. How are we to keep ourselves fully conversant with the names of medical practitioners from whom authorisation to prescribe "dangerous" drugs may have been withdrawn? The responsibility is apparently thrown upon us not to dispense their prescriptions for such drugs, but the position thus created is a pretty hopeless one. From time to time you publish notifications of such cases—and I observed one in your last week's issue (p. 291)—but how are we to remember who is who in this respect? Possibly the *C. & D.* may have to come to the rescue by publishing a weekly list of doctors on the Home Office "Index." As regards the keeping of "dangerous" drugs in a locked receptacle, there, again, we are confronted with a stupid difficulty, because we shall be infringing the Regulation whenever we have a morphine or cocaine bottle on the dispensing counter, while weighing out the quantity required for the medicine which is being dispensed! It seems quite obvious to me that the Home Office should not be permitted to bring any new poison regulations into force until they have received the definite approval of the Pharmaceutical Society's Council.

Regulation-Making

is one of the chief delights of the bureaucrat, who may rely upon experts but not always upon the right experts. Careful examination of such regulations as have originated with the Pharmaceutical Society's Council since the passing of the Pharmacy Act, 1868, will reveal the fact that, while always showing a due regard for the safety of the public, they have not been of an impracticable nature. Proper allowance has always been made for the little difficulties that are apt to arise when a change of custom is instituted, and it has thus been possible for chemists and druggists to comply with any restrictions imposed upon them from time to time. Home Office regulations, however, run counter to all that is reasonable in so many respects that I can only surmise the Department is being influenced by someone who is "out to" cause trouble. You are none too severe in your references to this matter (*C. & D.*, August 14, p. 312), and I am fully in accord with your suggestion that it is time such unfair discrimination against the Pharmaceutical Society received the attention of the House of Commons. The Society has deserved well of the State by its unselfish work in the public interest during a long course of years, and its members should begin to think of getting in touch with their parliamentary representatives unless they are prepared to see the Society wrecked.

'When Rogues Fall Out,

honest men come by their own."

Your article, "Attempted Legislation in 1748," reminds me that when the different sections of the profession of healing indulged in their virulent quarrel at the end of the seventeenth century the public received an amount of illumination which lightened up some of the dark corners of empiricism. When the history of the evolution of medicine and pharmacy is written there will be found in it the names of not a few who fearlessly criticised the *laissez-faire* practices of their brethren, although they themselves made little, if any, contribution to the positive knowledge of their science. Among these Robert Pitt will find a place. Dr. Robert Pitt took a most active part in the dispensary dispute, and wrote three works to show that the establishment of the dispensary for the poor, inaugurated and maintained by members of the College of Physicians, was justified because of the extortionate charges made by the apothecaries for their medicines. No man was better qualified to write on the state of the profession of medicine. He was A.M. of Oxford (1675), as well as M.D. (1681) of the same University; he became a Fellow of the College of Physicians, a Fellow of the Royal Society, and a physician to St. Bartholomew's Hospital.

The Three Volumes

written by him in connection with the great controversy were "The Craft and Frauds of Physic Exposed" (1702), "The Antidote or the Preservative of Health and Life, and the Restorative of Physick to its Sincerity and Perfection" (1704) and "The Frauds and Villainies of the Common Practice of Physic Demonstrated to be Curable by the College Dispensary" (1705). Of the first of these three editions appeared in two years, and, I think, there was a second edition of "The Antidote" in 1705. These writings not only proved that for the most part effectual remedies could be supplied at moderate prices, but they demonstrated what the witnesses of 1748 overlooked, namely, that the costly ingredients which they alleged were missing from the preparations obtained from the chemists were valueless and actually of no account. Pitt exploded the "gainful Industry" in such drugs as the precious stones, pearls, gold, mummy, bezoar stones and the horns of the elk, unicorn and rhinoceros. Notwithstanding his efforts to eliminate these articles from the lists of *materia medica*, many of them continued to appear in the formulas of the dispensatories for almost a century after his time. He also dealt faithfully with sarsaparilla. Concerning it he said that it appeared "to have obtained its Credit and Reputation by being in good Company, and by being prescribed with the cheapest drugs but of the greatest virtues, viz., Guaiacum, Sassafras, etc."

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Editorial Articles

Position of Ammonium Sulphate

RECENT developments in the ammonium sulphate market have been prompted to a large extent by the phenomenal increase in production. For the fertiliser year ending in June last the total output is estimated to have reached more than three million tons, compared with 2,725,400 tons in 1924-25, and 2,472,600 tons in the previous year, while a further important advance during the next twelve months is foreshadowed. The world output of by-product sulphate, derived from gas works, coke ovens, etc., fluctuates very little on the whole, and amounts approximately to 1,400,000 tons. The bulk of the new material, therefore, has been provided by the atmospheric nitrogen industry, chiefly in Germany. World consumption of ammonium sulphate has more or less kept pace with this rapid advance, but only at the expense of a companion nitrogenous fertiliser, Chilean nitrate of soda. In the United Kingdom, however, producers have not been able to share in the general increase in production, and for a variety of reasons the output in 1925 declined. Until 1924 the British total had risen steadily after the dislocation caused by the war, and in that year amounted to 420,610 tons, against 386,519 tons in 1923, and 321,686 tons in 1922. Last year only 396,678 tons were produced, principally owing to the depression in the iron and steel industries, and in the Scottish shale industry. It will be remembered that the advance in 1924 was more than accounted for by the 40,000 tons manufactured by Synthetic Ammonia and Nitrates, Ltd., at Billingham, and as the supply from this source is reported to have increased during 1925, the depression in the by-product is proportionately greater. There is little doubt that the current year will see yet a further fall in receipts from gas works and coke ovens, in view of the protracted coal miners' strike, and already there are signs in the export

market of this restriction. But considerable development work is taking place in the British atmospheric nitrogen fixation industry, and by the end of 1927 the output of synthetic ammonium sulphate is expected to be between 120,000 and 150,000 tons per annum, with the possibility of further progress later. Already the synthetic product has superseded the shale oil industry as the largest individual contributor to the British total, and it may be inferred that the low price now obtainable for sulphate will result in the ultimate cessation of production in the case of the latter. Turning to the world markets, it is found that the quantity available for distribution among importing countries in 1925 far exceeded any previous year, and amounted in all to about 840,000 tons. The principal supplier was Germany with 454,400 tons (of which about 110,000 tons went to France in the form of "reparations"); 262,262 tons came from the United Kingdom, and 123,140 tons from the United States. And before the war this country was the only exporter of any importance, with 323,000 tons in 1913. It will be appreciated, that in order to dispose of the present enormous surplus, fierce competition has ensued between the three main exporting countries, with the inevitable result of lower prices. With Germany taking the lead in this regard, the United Kingdom had no alternative but to follow; but the Americans relied on their geographical advantage in reference to the important Japanese market to keep prices as high as possible. For the current season a further considerable decline in price is announced, and it is feared that an almost unremunerative level has been reached. To combat this tendency an important nitrogen conference was called in Biarritz in April last at the invitation of the British Sulphate of Ammonia Federation and the German Nitrogen Syndicate, to which ten countries sent representatives. The question of price regulation was not discussed, but the gravity of the situation was recognised in the determination to intensify propaganda work among agriculturists in order to secure maximum consumption. In the markets served by British producers several changes have taken place during the present year. So far as the French market is concerned, the probability of its entire loss, which was mentioned in this column last December, has unfortunately materialised, and not a single ton has been imported from the United Kingdom during the whole of 1925. The most important customer, Spain, also shows a drop amounting to more than 50 per cent., but the prospects in Japan are considerably better. In the following table are given the export figures for the seven months ending July 31:—

Country of destination	1924 tons	1925 tons	1926 tons
Spain	49,684	75,592	32,013
Japan	41,421	19,441	31,724
Dutch East Indies	15,905	15,656	19,181
France	8,318	3,467	—
Italy	2,342	7,709	2,207
Brit. West Indies	7,199	6,848	4,571
Other countries	29,729	27,349	33,505
Total	154,596	156,062	123,201
Value	£ 2,116,423	2,007,219	1,509,241

Not only is German competition entering very strongly into all the markets mentioned in the table, but the steady progress of schemes for the production of synthetic nitrogenous fertilisers assists to deprive British exporters of their overseas markets. The necessity for developing the home market, therefore, is becoming increasingly realised, and, in conformity with the price movement in other directions, quotations for the coming season have been lowered by $7\frac{1}{2}$ per cent. compared with last year. In view of the temporary shortage of supplies, however, the new rates date from the beginning of September, rising from £11 7s. per ton for delivery in that month to £12 1s. in the spring months. Further, the method of pricing has been simplified. Prices hitherto have been

based on a content of 21.1 per cent. of nitrogen, with reductions for any deficiency, but in future a minimum percentage of 20.6 per cent. will be guaranteed. The new arrangements also abolish the allowances for taking delivery ex works, but the stipulation forbidding the export of material bought ostensibly for home consumption remains, with the usual penalties. Such an appreciable fall in prices, if followed up by an intensive propaganda campaign, should do much to raise the level of consumption in the United Kingdom, which at present holds at about 160,000 tons per annum.

Specialities in Germany

In contradistinction to so many other countries, Germany does not possess any legislation dealing specifically with the manufacture, importation and sale of pharmaceutical specialities or proprietary medicines. The various regulations affecting the delivery of medicaments in and outside pharmacies are applicable to the sale of this category of preparations, apart from numerous police orders in force in the individual States, chiefly directed against the public advertisement of certain remedies. Uniform regulations exist only for a class of preparations officially designated as "secret remedies" (*C. & D.*, II, 1925, p. 690), and these, too, take the form of prohibiting the public advertisement, as well as any references to the curative or prophylactic action, etc., of a number of specifically enumerated preparations. In 1910 an abortive attempt was made to pass a measure designed to combat effectively some of the worst features of quackery, and also including several provisions dealing with proprietary medicines, but owing to the strong opposition it encountered in the Reichstag and throughout the country, the Bill was withdrawn (*C. & D.*, II, 1910, index folio 830 and 852). Now, however, the fact that German pharmaceutical specialities have to comply with certain conditions before being admitted into most foreign countries, while the Governments of several of the constituent States are urging the necessity of introducing some form of control over the manufacture and sale of this class of preparations, are weighty factors which have induced the Government of the Reich to review the position. Particularly the former is being used as an argument in favour of imposing similar restrictions on the importation into Germany of foreign proprietary medicines. As a first step the Minister of the Interior has issued a lengthy circular, addressed to the Governments of the single States, in which the whole subject of pharmaceutical specialities in its various aspects is discussed, together with references to the measures recently introduced in other countries, and concluding with a request for an expression of opinion in regard to the ten points contained in a *questionnaire* attached to this circular. As a basis for envisaging the advisability, as well as the practicability, of introducing a law entrusting the control over the manufacture and sale of specialities in Germany to a Government authority, the recipients of the circular are invited to state their views on the following points—

- (1) Should in future the right to import medicinal specialities from abroad, or to manufacture these in Germany, be restricted and subjected to certain definite conditions?
- (2) What qualifications should be required of the person assuming the responsibility for the value of the speciality?
- (3) What standards, from the general as well as from a pharmacological and pharmaceutical-technical point of view, should be demanded of specialities allowed to be placed on the market (reasons for issuing a medicament in the form of a speciality; innocuousness; composition; stability)?
- (4) Should authorised specialities be registered?
- (5) Should registration of an authorised speciality be dependent upon the payment of a fee?

(6) Should the validity of registration be permanent or limited to a definite period?

(7) Under what conditions should it be possible to cancel the registration of a speciality during the period of its validity?

(8) Should regulations be issued regarding the kind of container to be used, labelling and packing (disclosure of the ingredients; special reference on the package to the presence of potent drugs; inclusion of recommendations, testimonials of cures, and directions for use, in the package referring to the article itself, or to other remedies; form of the container for medicaments for external use; colour of the labels)?

(9) Should the medicament be analysed to establish whether its composition corresponds with the disclosed formula: (a) once only, when application for registration is made; (b) regularly, at definite intervals; (c) for a specific reason?

(10) Should advertisements of specialities in the Press be controlled at the time of applying for registration, or permanently: (a) in daily, weekly and other periodicals; (b) in professional journals?

In connection with the German Government's intention of introducing uniform legislation, on lines evidently similar to that in force in other countries, i.e., implying registration, to deal with proprietary medicines—the records of pharmaceutical congresses and meetings bear witness to the fact that this vexed question very closely affects our Continental *confrères*, since the increasing popularity of this class of medicaments is reflected in the shrinkage of profits from prescription work—it must be borne in mind that the animosity, as well as hostility so often forcibly expressed by pharmacists abroad against proprietary medicines are largely due to the feeling that pharmaceutical manufacturers are poaching on their preserves. They have no fault to find with those proprietary preparations which admittedly owe their properties and reputation to special manufacturing processes or methods which cannot be reproduced in the ordinary pharmacist's laboratory. But they object very emphatically to the ever-increasing output by pharmaceutical manufacturers of compound medicaments, in their composition essentially simple prescriptions, solutions, tablets, ampoules, ointments, etc., which are placed on the market as special preparations, often under a brand name, and which the doctor is persuaded, by means of an intensive propaganda, to prescribe in original packages instead of writing out a prescription to be dispensed *lege artis*. In many instances the price of these factory-made medicines is lower than the charge which would be made, based on the official drug tariff, were they compounded in the usual way on a magistral prescription detailing the ingredients, hence their popularity in prescribing for members of sick clubs. Apart from the loss in income from the most profitable branch of the pharmacist's business—prescription work—nothing is left to his skill, and he is conscious of becoming more and more a mere retailer of packed goods, a derogatory position hardly consonant with the high standard of professional and scientific knowledge he is required to possess. That is essentially the reason why the Continental pharmacist inclines to look upon the pharmaceutical manufacturer as his sworn enemy.

The Rise in Linseed Oil

THE advance in the price of this commodity recently became inevitable, largely in consequence of the adverse crop forecast from India, according to which this season's linseed yield was placed at about 400,000 tons, which would indicate a deficit of fully 140,000 tons compared with last year's yield. It is true that this deficit does not represent one-third of the huge excess of total exportable surplus of the current Argentine crop with an

actual yield of over 1,900,000 tons, which eclipsed all previous records. But market conditions for some time past had been rendered rather sensitive on account of the unusual cheapness of linseed oil and the seed. Attention was drawn to this and to possibilities as to an increase in the outlet in our issues of February 6 (pp. 195-6) and May 22 last (pp. 677-8); and it is not surprising that the modified outlook in the direction of a more manageable seed surplus for the remainder of this year precipitated a sharp revival of speculative enterprise, of which there has been particular evidence in the oil product. At the worst of the depression in the early months of this year the price for spot delivery fell to about £28, and subsequently fluctuated considerably around £30. But following increased speculative buying recently, in addition to considerable purchases by consumers, who were short of stock, prices quickly advanced to about £36 a ton; and the fact deserves notice that contracts were arranged for January-April 1927 on terms about in line with spot oil, although summer deliveries this year could be secured at a discount of about £1 per ton. Calcutta seed, which had fallen to about £16 per ton, has advanced to upwards of £18 under curtailed offers, with shippers tempted to hold back their seed for higher prices. Last year linseed oil showed unusually wide fluctuations between about £53 and £33 10s., which latter figure has already been exceeded lately, whereas the cost of seed so far has not reached the lowest point recorded last season. It is well, perhaps, to bear in mind that home industrial conditions have been considerably weakened by the coal strike, and that the rise in the oil has been rather rapid, considering that the much increased European and American demand for the seed has been freely met by Argentine shippers, who have had an excellent opportunity to work off their surplus. Still large quantities also are waiting for disposal at the seaboard. The fact, however, has to be noted that the price of forward seed is at a premium over the value for parcels afloat or for prompt shipment, while ample supplies appear to be available on this side, and crushing operations may be expected to remain under restrictions until the coal troubles are settled. The official returns of home imports for the six months to the end of June, with comparison for last year were as follows:—

	1925	1926
U.K. imports, January-July	Tons	
From Russia	12,978	22,363
From Argentine Republic ..	75,033	182,302
From British East India ...	91,896	12,972
From Canada	1,505	nil
From other countries	3,639	10,429
Total	185,251	228,066

The increase thus shown against last year is considerable, being equal to about 25 per cent. The figures for last year, of course, were abnormally low, and the cheapness this year induced much freer buying by importers. In consequence of the increased capacity of Europe and the United States this year, the takings from the River Plate have been at a much enhanced rate. Over one-half of the Argentine current crop surplus, which was estimated at 1,725,000 tons, having been already accounted for, the balance would represent approximately 700,000 tons. Therefore, assuming that at least 150,000 tons will yet become available from India this year, the total contributions from the two chief exporting countries during the second half of the year would amount to roughly 800,000 tons, apart from certain minor contributions from Russia and other countries. This at any rate is well in excess of the total imports made by Europe and the United States for the same

period last year, and should neutralise the possibility of any important further advance, although it remains to be seen how crop developments will shape in North America. Prospects having regard to the next Argentine crop will also require to be considered. Weather reports from the River Plate have been favourable, sowings over two-thirds of the areas intended for cultivation having been already satisfactorily effected. On the other hand, the crop outlook in the United States was said to be rather uncertain on account of abnormally dry weather; but a later report states that rains have since fallen, which has permitted of an extension of the sowings. Advices as to the extent of the areas under cultivation are widely divergent, although these are likely to be rather less than last year when the American crop yielded about 550,000 tons. The crop outlook in Canada is considered satisfactory. It is fully expected that imports by America from the River Plate will continue on a very large scale and the demand from the Continent has developed in excess of anticipations, the total quantities absorbed so far this year from that quarter being well over 380,000 tons, and there is every indication of Continental crushers pushing their operations at a heavy rate over the remainder of the year. Germany this year has taken considerably more seed, so that her crushing mills are now in a better position to cope with domestic needs. The competition of Continental linseed oil, chiefly Dutch, continues to play an important part in this country, the receipts for June amounting to 1,072 tons, making an aggregate of 8,240 tons for the six months. The fact may be mentioned that this country is again exporting linseed oil on balance, so that the position of home crushers in regard to this competition is not so bad as it was last year, as will be seen from the figures given hereunder:—

	1925	1926
January-June		Tons
Linseed oil, U.K. imports ...	11,188	9,018
Linseed oil, U.K. exports ...	15,187	15,249
Net exports ...	3,999	6,231

There has been some recovery in our exports so far this year, and imports have fallen off, but the former are still very disappointing compared with the figures for recent years. There has been a moderate reaction lately, both in seed and the oil-product on a lull in the demand.

Recent Patents

Abstracts of specifications of recently-granted patents for inventions. The complete specification (1s. each including postage) of any British patent can be obtained from the Patent Office, 25 Southampton Buildings, London, W.C.2, on quoting the name of the patentee and the number of the patent.

Antimony Compounds.—A process of preparing new complex antimony salts, consisting in causing thioglycollic acid to react with a compound of pentavalent antimony. (I. G. Farbenindustrie A.G. 247,986.)

Lipase.—A process for producing lipase, consisting in fermenting protein containing refuse of vegetable seeds rich in oil or fat, such as castor or soya bean, and the lipase precipitated by acetic acid or evaporation. (Shozo Yamamoto. 238,507.)

Preparation emitting Beta-Rays.—A preparation emitting β -rays and which is insoluble in the body fluids is obtained by treating a solution of a salt of uranium containing a ferric salt with ammonium carbonate. (Dr. Marie Wreschner and Dr. L. F. Loeb. 248,756.)

Organotherapeutic Product.—A process for the manufacture of highly purified physiologically active substances from female internal secretory organs, consisting in treating extracts of the placenta, ovary, or corpora lutea with alkali in an organic solvent which does not dissolve the resulting soaps, the alkali being adsorbed in a carrier. (Society of Chemical Industry in Basle. 244,055.)

A. Ph. F.

(Concluded from C. & D., July 31, p. 204.)

New formulas from the recently published edition of the Australian Pharmaceutical Formulary:—

SYR. FERRI PHOSPHATIS Co.

Compound Syrup of Phosphate of Iron; Parrish's Syrup

Iron wire	...	...	37½ gr.
Precipitated calcium carbonate	...	...	4 oz.
Potassium bicarbonate	...	...	9 gr.
Sodium phosphate	...	...	9 gr.
Syrupy phosphoric acid (sp. gr. 1.750)	...	...	450 m.
Cochineal	...	...	42 gr.
Sugar	...	...	13 oz.
Orange flower water, B.P.	...	...	300 m.
Distilled water	...	...	to 1 pint

Dissolve the iron wire in 240m of the phosphoric acid, diluted with the same volume of distilled water; dissolve the calcium carbonate in 210m of the phosphoric acid diluted with 2 oz. of distilled water; mix these solutions and dissolve in it the potassium bicarbonate and the sodium phosphate. Boil the cochineal with 5 oz. of distilled water for 15 minutes, filter and wash the filter with distilled water until the filtrate and washings together measure 7 oz. In this dissolve the sugar with the aid of heat; when cold add the other solutions, the orange-flower water, and dilute with distilled water to the required volume.

Dose: ½ to 2 dr.

TR. EUPHORBIE

Tincture of Euphorbia

Euphorbia pilulifera, herb	...	...	2 oz.
Alcohol (60 per cent.)	...	...	to 1 pint

Prepare by the percolation process of the British Pharmacopœia.

Used in the treatment of respiratory troubles.

Dose: 10 to 30m.

TROCH. ANISI

Anise Lozenges; Brompton Hospital Lozenges

Extract of liquorice	...	...	300 gr.
Oil of anise	...	...	50 m.
Gum acacia, in pdr.	...	...	1,200 gr.
Gum tragacanth, in pdr.	...	...	150 gr.
Sugar, in pdr.	...	...	600 gr.
Charcoal, in pdr., a sufficiency to colour	...	...

Rose water, sufficient to mass

Divide into 100 lozenges and dry at a low temperature. Allow to dissolve slowly in the mouth.

UNG. HYDRARGYRI AMMON.

Ammoniated Mercury Ointment; White Precipitate Ointment

Ammoniated mercury	...	...	1 oz.
Paraffin ointment, white	...	...	to 10 oz.

Mix.

Identical in composition with ammoniated mercury ointment of the B.P. 1898. It is more permanent than the corresponding ointment of the B.P., 1914.

UNG. ICHTHAMOL

Ichthamol Ointment

Ichthamol	...	...	1 oz.
Hydrous wool fat	...	...	to 2 oz.

Mix.

Used as a stimulant and antiseptic for psoriasis, eczema, acne and other skin diseases.

NEW DOCKS PROJECTED.—Synthetic Ammonia and Nitrates, Ltd., are contemplating the construction, at their works at Billingham, of private docks three acres in extent, with three or four berths.

THE I.G. FARBENINDUSTRIE. The German Dye Trust, proposes to increase its capital from 646,000,000 marks (£32,300,000) to 1,100,000,000 marks (£55,000,000), chiefly in view of participating financially in various explosives works, enlarging the synthetic nitrogen plants, and entering into relations with foreign concerns.

Notes on Books

CHARLES SANDOE GILBERT

is one of the worthies referred to in C. E. Vulliamy's "Unknown Cornwall" (John Lane, London); and although the principal facts of Gilbert's life had already been assembled in the Dictionary of National Biography, Mr. Vulliamy has succeeded in imparting fresh interest to the story of a chequered career. Gilbert was born at Kenwyn, near Truro, in 1760, and for some years carried on a successful business, in partnership with a Mr. Powell, in a series of medicines, presumably of his or their invention. On Powell's retirement Gilbert continued to trade alone, opening branches at Plymouth and Devonport, employing six travellers, and advertising in local newspapers. Everything went well till about the year 1810, when he conceived or there was suggested to him the notion of tracing his descent from the Gilberts of Compton Castle, Devonshire. The ultimate outcome of this idea was a two-volume "Historical Survey of the County of Cornwall," in the collection of materials for which his six travellers were set to work, with the not unnatural result that his business declined. The book, which has taken a high place among county histories, cost much more than the author expected it would, and in 1825 he became bankrupt. In the following year he removed to London, opened a chemist's shop in Newcastle Street, Strand, and took a Mr. Gilbert Morrish as partner. He died at the same address on May 30, 1831.

"THE DEAN AND JECINORA"

is the cryptic title of a novel by Victor L. Whitechurch (T. Fisher Unwin, Ltd.), an author who has other stories of clerical life to his credit. Jecinora is the name of a proprietary liver tonic—"jecinoris" being a variant of the genitive "jecoris"—the invention of Julian Bruce Stanniland, F.C.S. The Dean of Frattenbury, at the opening of the story, finds himself unwillingly the neighbour of Stanniland, who has ruffled local sensibilities by purchasing a house in the exclusive cathedral close. Given the other leading persons of the plots, the Dean's niece (an independent girl of a self-possessed type), his wastrel brother and a pompous verger, the ingredients are at hand for a light comedy which, with the aid of the long arm of coincidence, works out quite agreeably. It is not necessary to indicate the course of events. By accident or design, the author has kept well within the limits of probability in the few details given of the composition of Jecinora. We first become aware of the consignment of "a certain herb" from India, and several pages later we learn that each ounce of the finished product contains one-eighth of a grain of calomel, *plus* flavouring. This is exactly the kind of formula that a Fellow of the Chemical Society, unfortified by any practical acquaintance with pharmacy, might have been expected to perpetrate. The character of Finch, the verger, is developed with touches of artistry that raise the book distinctly above the average level of contemporary work, and the current of happenings moves swiftly.

THE FUGGER NEWS-LETTERS,

two series of which have lately appeared in English (John Lane, London), are of the nature of a footnote to history, and may be dipped into with interest. As is generally known, the House of Fugger had its headquarters in Augsburg, and traded all over Europe by means of agents; the news-letters of these agents, now given to the world, range from China to Peru, interpreting historical events from 1568 to 1605 in commercial terms. Mention of spices, with quantities, is frequent; we also read (ii, 242) of 1,600 barrels of quicksilver and other commodities. Occasional references to poisoning, real or supposed, reflect the insecurity of life usual at that period. Medicines receive but little notice; by way of compensation, however, alchemists and their experiments in the transmutation of metals come into prominence from time to time. Several weekly reports from Venice, for instance, during the winter of 1589-90 keep the Fuggers informed of the doings of Marco Antonio Bragadini, called Mamugnano, who "is reported to be able to turn base metal into gold," and, although the correspondent is apparently a trifle sceptical as to

the genuineness of this achievement, follows it up by throwing gold about "in shovelfuls."

THE RECIPE

for this transmutation cannot fail to be interesting to us who live in the more prosaic twentieth century. "He takes ten ounces of quicksilver, puts it into the fire and mixes it with a drop of liquid, which he carries in an ampulla. Thus it promptly turns into good gold. . . . The day before yesterday he presented to the Secret Council of Ten two ampullas with this liquid which have been tested in his absence. The first test was found to be successful, and it is said to have resulted in six million ducats. . . . The alchemists have taken heart of grace again and are working night and day. One hears of nothing but of this excellent man, who, as already stated, has no other wish but to serve his country." Of quite another order of mankind is the hermit who "uses only prayer and fresh water and accepts nothing" for his cures. The guarded language in which these and other quasi-miraculous happenings are related reveals the letters as the correspondence of a shrewd, cool observers not easily swayed by prevailing fancies or superstitions.

MEDICINAL RINGS

form the subject-matter of the second chapter of "Les Rois Thaumaturges," an erudite work by Professor Marc Bloch, of Strasbourg University (Milford, London), full of curious information on the fascinating subject of cures attributed to royalty. Pharmacists have an additional interest in such rings by reason of the fact that anti-rheumatism rings constitute the nearest modern equivalent to what were often referred to in England, from the fourteenth century onwards, as cramp-rings. Professor Bloch traces with scholarly care and skill the differing usages with regard to such rings in England, France, and Switzerland, and his book should be read in the original. In the case of royal cramp-rings, the original practice appears to have been for the sovereign, on Good Friday of each year, personally to present to the Church a certain number of pieces of money, which he proceeded to buy back with other money, ordering that the dedicated coins be made into rings. Eventually rings were brought ready forged to the service and dedicated with Latin prayers. Mary Tudor was the last monarch to keep up the custom; and a liturgy preserved in her own missal shows that the Queen rubbed the rings between her hands, using at the time words indicating efficacy derived from the anointing at the coronation service. It followed from this belief that no one other than the reigning sovereign could confer a like value on rings—although, in fact, Philippa, wife of Edward III, "répéta après son époux les gestes traditionnels" in 1369.

ANOTHER KIND OF RING

to which virtue was long attributed was a ring the materials for which were collected from various people by a more or less complicated process. Professor Bloch quotes the following communication from Mr. J. Herbert, of the British Museum: "From 1881 until his death in 1885 my father was Rector of Northlew, in Devonshire. . . . During that time . . . my mother wrote me a description of what had happened on the previous Sunday: At the end of the morning service a girl stood at the church door and collected twenty-nine pennies, one from each of twenty-nine young men. She gave these to a thirtieth young man in exchange for a half-crown, and took the half-crown to the local 'White Witch' (a farmer's wife who kept a small shop in the village), who was to return it to her eventually in the form of a silver ring, as a sovereign remedy for fits." This, it will be observed, happened hardly more than forty years ago. In Berkshire, about the year 1800, the recipe for a medicinal ring was to collect five sixpences from five different bachelors (who must be unaware of the object in view), and then to send the money by a sixth bachelor to a smith, who also must be a bachelor. A short article on the subject of healing rings, from the pen of Mr. William Maskew, Ph.C., appeared in THE CHEMIST AND DRUGGIST, I, 1925, p. 754.

Insurance Act Dispensing

Record of matters concerning Chemists' interests in the
National Health Insurance Acts

ENGLAND AND WALES

Local Reports

Cambridge.—At a meeting of the Insurance Committee, recently, it was reported that the Joint Services Subcommittee had considered a letter from the East Anglian Joint (Pricing of Prescriptions) Committee with reference to a certain prescription which the chemist in dispensing had altered. The doctor agreed that the alteration was proper in the circumstances, and the Subcommittee recommended that the chemist was justified, and that no further action be taken. The report was adopted.

Cardiganshire.—At a meeting of the Insurance Committee, on August 13, the Pharmaceutical Service Subcommittee reported that the analyst's certificate in regard to a medicine dispensed by a chemist on the committee's list showed that an excess of 26.6 per cent. of potassium iodide had been dispensed. The clerk had communicated with the chemist concerned enclosing a copy of the certificate, but no reply had been received. The Subcommittee considered a letter received from its agent, who reported that he called at a chemist's shop and tendered a test prescription, with a request to have it dispensed in twenty minutes. On returning, he was informed that the chemist was out of stock of one of the ingredients. It was resolved to recommend that the chemist be severely reprimanded for his failure to dispense the medicine, and that a copy of the agent's letter be forwarded to the Welsh Board of Health.

Devon.—A meeting of the Pharmaceutical Committee was held at Exeter on July 28, Mr. S. S. Brown presiding. Reports of the Central Checking Bureau for November, December and January were approved. The testing of dispensing scheme was reviewed, and it was resolved to suggest that the chemist should not be held responsible for dressings required to be supplied in sealed packets as received.

Gloucester.—At a recent meeting of the county Insurance Committee it was reported that a chemist concerned in a case of inaccuracy wrote expressing regret. The chemist was cautioned. In the second case the Subcommittee were satisfied that the medicine was dispensed with reasonable care and that there was no ground for complaint. The cost apportioned to the county during the past year for 231,656 prescriptions for 60,349 insured persons was £279 16s. 5d. The amount paid to chemists in the county for medicines, etc., was £8,590 18s. 5d. The average cost per prescription was 8.9d.

Hampshire.—At a recent meeting of the Insurance Committee, arising out of the report of the Medical Benefit Subcommittee, Dr. Bodington reported that he had arranged with the county medical officer that auto-genous vaccines should be prepared in the county laboratory and supplied for £1 1s. This arrangement was confirmed.

Kent.—At a meeting of the Insurance Committee on July 28 the Pharmaceutical Committee reported that test prescriptions were sent to a chemist for a mixture and a flannel bandage. The mixture proved, on analysis, to be satisfactory, but the bandage was not enclosed in its original wrapping, as required; it was 20 per cent. less in weight than specified in the British Pharmaceutical Codex, and it contained 70 per cent. of cotton, whereas the Codex specified an all-wool fabric. The manager who dealt with the transaction explained that he had not seen a prescription which ordered a flannel bandage for years, and when he sought for one he found one labelled "flannel," and having regard to the retail selling price he concluded the bandage supplied would conform to the prescribed standard. He opened the original wrapping in order to satisfy himself as to the contents. The Subcommittee recommended that the chemist be censured. The report was adopted.

N.E. Midland Pricing Bureau.—The Executive Subcommittee have recently issued the 1925 report on the

work of the North-East Midland Prescription Bureau, which has priced during the year 1925 (December 1924 to November 1925) a total of 3,115,731 prescriptions, compared with 2,899,552 for the corresponding period last year. The cost of pricing was 16s. 11½d. per 1,000, compared with 16s. 8½d. per 1,000 during 1924. The following statistics are also given:—

Year	No. of accounts	No. of prescriptions	Value
1917 (Dec. 1916—Nov. 1917) ..	7,005	1,864,522	£ 45,245 12 0
1918 (" 1917— " 1918) ..	6,707	1,979,545	56,959 14 11
1919 (" 1918— " 1919) ..	6,739	1,867,878	59,047 17 4
1920 (" 1919— " 1920) ..	6,821	1,979,568	75,897 19 7
1921 (" 1920— " 1921) ..	7,011	1,986,193	73,777 11 4
1922 (" 1921— " 1922) ..	7,336	2,266,156	77,090 5 10
1923 (" 1922— " 1923) ..	7,695	2,484,576	80,146 18 1
1924 (" 1923— " 1924) ..	8,021	2,899,552	96,503 7 6
1925 (" 1924— " 1925) ..	8,393	3,115,731	102,723 17 8

Of the twelve areas, the three with the highest number of prescriptions during the year ended December 31, 1925, were Sheffield, 772,937; Derbyshire, 569,014; Nottingham, 442,632; and the three lowest were Barnsley, 83,572; Grimsby, 65,753; and Lincoln, 43,306. The highest total average cost of each prescription was 8.7d. in Lincs. (Lindsey), Derby 8.6d., and Nottingham 8.3d. The lowest was 7.6d. in Barnsley and Sheffield. The frequency of prescribing was 5.2 prescriptions per person in Rotherham, and the lowest 2.7 in Grimsby. There were 5,154 insulin prescriptions issued, with a total value of £1,548 17s. 2d. (last year 3,930 prescriptions, at £1,836 2s. 2½d.). Serums and vaccines were ordered in 597 prescriptions at a cost of £220 3s. 7½d.; vaccination lymphs on 888 prescriptions at £40 14s. 6½d.

Newport (Mon.).—At the recent annual meeting of the Insurance Committee, Mr. W. H. Padget, chemist, was unanimously elected *Chairman* for the ensuing year. It was reported that the local insured population is 37,768, an increase on the year of 63. The number of prescriptions dispensed during 1925 was 123,215, compared with 114,374 in 1924. The amount paid to panel chemists for 1925 was £4,112 1s. 4d., an increase of £222 7s. 3d. on the amount paid in the previous year.

Surrey.—A meeting of the Insurance Committee was held on July 28, at which the Pharmaceutical Service Subcommittee reported that, of fourteen analyses performed, two had been referred to the Subcommittee. One case was adjourned, and in the other the analyst reported an excess of potassium iodide of 9.6 per cent. The chemist stated that the iodide of potassium was weighed on scales which were periodically tested; he also stated that the water in the district contains a certain percentage of chlorine which might affect the result. The Subcommittee formed the opinion that, although the result is as it is, there was no carelessness in the dispensing of the medicine, and no further action was taken. Two chemists have joined the panel, and there was one withdrawal.

SCOTLAND

Banff.—A report submitted at a recent meeting of the county Insurance Committee included the following statistics:—

	February	March	April
No. of forms ..	1,874	1,925	1,723
Value ..	£107 0s. 2½d.	£118 17s. 5½d.	£97 0s. 9d.
Average price ..	13.2d.	13.47d.	13.06d.

Included in the total value of these months there is a sum of £11 15s. 11d. in respect of insulin supplied to insured persons. Following upon the request by the Board of Health for the Panel Committee's observations in respect of a prescription of spirit of rosemary during August, September and October 1925, by a deputy of one of the doctors, there was submitted to the Medical Benefits Subcommittee a letter from the secretary of the Panel Committee, recommending that in view of the doctor's letter and his explanation that his deputy had no knowledge of panel work, no further action be taken in the matter. The report was adopted.

Pharmaceutical Society of Great Britain Edinburgh Examination Results

Major Examination

At the Major examination of the Pharmaceutical Society, held in Edinburgh during July, the following passed:—

Bain, Joseph, Glasgow Lothian, Agnes, Portobello
Carus, Huldah H. P., Nixon, W., Sunderland
Edinburgh

Qualifying Examination

—	No.	PRELIMINARY SCIENTIFIC				CHEMIST AND DRUGGIST QUALIFYING			
		Absent	Failed	Referred	Passed	Absent	Failed	Referred	Passed
Entered for whole examination ..	38	—	5	11	22	—	3	7	12
Entered for C. & D., and referred subject in Prelim. Sc. ..	23	—	—	4	19	—	4	7	8
Entered for Prelim. Sc. only	129	2	24	48	55	—	—	—	—
Referred subject in Prel. Sc. only ..	42	1	—	15	26	—	—	—	—
Entered for C. & D. Exam. only ..	126	—	—	—	—	—	10	31	85
Referred subject in C. & D. Exam. ..	19	—	—	—	—	—	—	6	13
	377	3	29	78	122	0	17	51	118

Referred in one subject: Botany, 7; chemistry, 66; physics, 5; pharmacognosy, 1; pharmacy, 45; pharmaceutical chemistry, 5; forensic pharmacy, 0; total, 129.

CHEMIST AND DRUGGIST QUALIFYING EXAMINATION

The following, having satisfied the examiners in the Chemist and Druggist Qualifying examination, have been registered as chemists and druggists:—

Adamson, H., Farsley, Leeds
Alcock, Isabella McP., Kintore
Anderson, D. R., Snnderland
Baynes, R., Blackburn
Best, I., Sheffield
Beveridge, J., Dunfermline
Booth, N. H., Rochdale
Bracken, R. B., Perth
Breckon, R., Gateshead
Bruce, A. L., Aberdeen
Caldwell, May C., Montrose
Cameron, A., Islay
Carrie, Alice J., Dundee
Cathro, R. D., Dundee
Cooper, D. W., Monymusk
Cossar, J. McD., Edinburgh
Coulson, S., S. Shields
Coutts, A. D., Kintore
Coutts, Mary, Elgin
Crowe, E. R. R., Carlisle
Cunningham, A. W., Leith
Currie, W., Glasgow
Davidson, E. F. K., Glasgow
Day, A., Keighley
Driscoll, T., Sunderland
Duff, T. G., Dundee
Duncanson, J. P., Dunfermline
Duncan, Jessie, Aberdeen
Dunn, W. S., Banff
Ferguson, Margaret, Glasgow
Fleming, Mary I. C., Glasgow
Forbes, J., Aberdeen
Fraser, I. McK., Aberdeen
Gertzen, J. H. H., Middleburg
Gooding, W., Glasgow
Graham, Sarah McM., Greenock
Grant, E. B., Newcastle-on-Tyne
Greenwood, F. W., Heckmondwike
Gunn, C., Kirkcaldy
Hamilton, A., Paisley
Hopkinson, E., Cloughfold
Howe, R., Glasgow
Ingham, E., Bradford
Jackson, M., Glasgow
Johnson, C. H., Southport
Keay, Jessie, Monifeth
Kellas, C., Aberdeen
Kelly, E., Culter
Leslie, D. G., Dingwall
Litt, L. M., Cockermouth
Ludlam, F. W., Fleetwood
Madisky, Fanny, Glasgow
Massie, P. Y., Wishaw
Melrose, F., Methil
Melrose, J. H. N. McA., Methil

Millar, W. H., Helensburgh
Millar, W. M., Beith
Miller, Daisy A., Forres
Morton, R. A., Northallerton
McConnell, Isabella W., Glasgow
McCree, R. G., Sunderland
McDavid, Elizabeth M., Glasgow
Macgregor, D., Edinburgh
MacGregor, J., Inverness
McIntyre, B. E., Ellesmere
McKelvie, A., Edinburgh
McRobb, Catherine B., Aberdeen
Paton, J., Airdrie
Pearson, A., Alloa
Phillips, B. D., Hull
Proudfoot, W. B., Dundee
Ramage, R., Portobello
Reid, J. B., Glasgow
Reoch, J. S., Dundee
Richards, W. P., Stoke-on-Trent
Riley, A. R., Wallsend-on-Tyne
Robertson, Elizabeth L., Kirkcaldy
Sanderson, Mary D., Tealing
Scott, E., Keswick
Shanks, A. L., Montrose
Short, E. L., Amble
Simpson, W. C., Aberdeen
Simpson, W. W., Glasgow
Smith, D. W., Aberdeen
Stephen, J. C., Peterhead
Stevenson, A., Rutherglen
Tingey, H., Preston
Toogood, G. R., Harrogate
Townsend, G. I., Dundee
Tulloch, T. W., Leith
Walker, J., Glasgow
Warden, A., Greenlaw
Webster, R., Elgin
Whittle, Muriel E., Morpeth
Williams, P., Ashton-under-Lyne
Young, C. W., Edinburgh
Young, T., Edinburgh
Yule, T. B., Edinburgh

PRELIMINARY SCIENTIFIC AND CHEMIST AND DRUGGIST QUALIFYING EXAMINATIONS

The following, having satisfied the examiners in the Preliminary Scientific and Chemist and Druggist Qualifying examinations, have been registered as chemists and druggists:—

Adamson, Jane C., Markinch
Anderson, J., Hawick
Bell, Jessie, Kirkcaldy
Campbell, W. W., Tayport
Cheyne, A., Edinburgh
Donaldson, Margaret, Lockerbie
Harrow, Margaret E., West Wemyss
Horne, Elizabeth S., Edinburgh
Kerr, Janet B., Thornhill
McCray, E. R., Whitehaven
McKune, W. G., Langholm
Martin, J. A., Aberdeen
Ritchie, Agnes G. M., North Berwick
Smith, J., Kintore
Thomas, H. T., Kelso
Watt, Rachel, Edinburgh
Whitfield, C. E., New-castle-on-Tyne
Wilson, Flora K., Buckhaven
Wilson, Janet McA., Edinburgh
Wilson, Jeanie C., Edinburgh

Branch Meetings

Exeter.—The annual meeting of the Exeter Branch was held on July 28, Mr. M. T. Foster in the chair. The annual report and financial statement were adopted, and £10 10s. voted to the Orphan Fund. The officers elected were: *Chairman*, D. Reid; *Vice-Chairman*, M. T. Foster; *Treasurer*, S. S. Brown; *Secretary*, F. Southern; *Social Secretary*, A. C. Milton; *Auditor*, W. W. Pine; *Committee*, W. R. B. Arnold, F. E. Battershill, G. A. Clarke, B. Derry, F. Dyson, G. F. L. Fisher, W. E. Hollows, W. W. Pine, P. F. Rowsell, J. H. Scott, W. J. Shepperd, J. H. Smith, P. F. Trestrail, and F. W. Vinden. The principle of a meeting of branch delegates being given the powers at present possessed by the general meeting was approved subject to twenty-eight days' notice being given to the branches of the business to be transacted at such delegates' meeting. It was also approved that the Council of the Society should have powers to remove persons from the Register, subject to adequate facilities for restoration. The Benevolent Fund collection amounted to £3 8s.

ONE APPLICATION under the Dangerous Drugs Act, 1920, was made last year by a captain of a foreign steamship berthed in Hull docks.

REGISTRATION OF MATERNITY HOMES.—On and after January 1, 1927, it will be an offence under the Midwives and Maternity Homes Act, 1926, to carry on a maternity home (as defined in the Act) without registration with the local authority. This and other details of the Act are explained in Circular 724 of the Ministry of Health (Stationery Office, 3d.).

Italian Foreign Trade

ITALY'S exchange of goods with foreign countries in 1925 shows a considerable expansion, in imports as well as in exports, compared with the preceding year. In 1925 imports represented a value of 26,253,967,975 lire, an increase of 6,851,050,904 lire over the figure for 1924 (19,402,917,071 lire), while the value of the exports rose from 14,372,955,341 lire in 1924 to 18,277,502,101 lire in 1925, an increase of 3,904,546,760 lire. From these figures it is apparent that the excess of imports over exports has grown. The group of chemical and medicinal products, resins, dyes and colours participated in the imports to the extent of 1,727,680,207 lire (1924: 1,412,228,694 lire), while exports figure with 569,210,762 lire (1924: 434,796,526 lire). Drugs and pharmaceutical products were imported to the value of 52,113,695 lire (1924: 47,546,883 lire), while exports totalled 64,582,494 lire (1924: 54,736,982 lire). Exports of essential oils, perfumes, soaps and candles represented a value of 123,050,804 lire (1924: 85,520,254 lire), and the economic importance to Italy of the production of essential oils may be gauged from the fact that of this total the sum of no less than 77,640,637 lire (1924: 56,095,134 lire) was derived from exports of citrous oils, chiefly the oils of bergamot and of lemon. Imports from Great Britain amounted to 2,722,630,811 lire (1924: 2,176,225,875 lire), while exports to this country represented a value of 1,854,988,608 lire (1924: 1,493,035,451 lire). The value of goods included under the title pharmaceutical preparations and medicinal specialties imported into Italy from Great Britain totalled 3,382,929 lire (1924: 2,403,256 lire). In the following table the figures for those goods of interest to our readers are given, based on the official Italian statistics, for the years 1924 and 1925, amounts in kilos:—

	Imports		Exports	
	1924	1925	1924	1925
	Kilos	Kilos	Kilos	Kilos
Acid, arsenious ..	288,700	480,000	—	8,600
Acid, benzoic ..	13,300	15,800	100	100
Acid, boric, crude ..	—	3,000	161,100	101,200
Acid, boric, refined ..	43,500	900	1,522,700	1,579,500
Great Britain ..	—	—	1,446,800	1,451,000
Acid, carbolic ..	370,200	355,200	22,900	10,200
Acid, citric ..	3,000	1,000	1,930,600	2,776,800
Great Britain ..	—	—	239,500	319,400
Acid, lactic ..	5,500	9,400	3,500	6,000
Acid, salicylic ..	59,600	40,000	—	—
Acid, tannic ..	19,500	15,600	—	—
Acid, tartaric ..	38,800	47,100	3,200	190,100
Great Britain ..	22,700	5,100	3,274,900	3,941,900
Brit. India ..	—	—	469,300	513,000
Australia ..	—	—	78,700	90,900
Canada ..	—	—	1,000	5,200
Alkaloids, n.o.e., and salts ..	9,882	10,135	11,900	20,200
Almonds, whole ..	*401	*441	1,921	778
Almonds, shelled ..	527,100	551,300	2,440,600	1,295,900
Great Britain (total) ..	439,400	369,400	23,356,200	15,913,300
Brit. India ..	—	—	1,582,800	876,900
Australia ..	—	—	1,757,400	684,900
Canada ..	—	—	457,100	704,200
Aloes ..	46,300	37,400	1,300	1,300
Bismuth nitrate ..	2,400	2,000	100	100
Borax ..	900,100	945,900	5,200	4,700
Bromides, metallic ..	28,200	29,900	400	400
Bromine ..	2,700	7,300	—	—
Calcium citrate ..	600	—	3,775,200	4,678,000
Great Britain ..	—	—	1,576,100	2,004,000
Camphor ..	82,600	142,600	600	100
Cardamoms ; anomes ..	*200	*2,900	—	—
Caustic potash ..	2,000	1,300	100	100
Caustic soda ..	1,221,400	1,836,800	10,900	4,800
Great Britain ..	15,314,100	22,289,500	348,500	205,100
Chloroform ..	1,025,100	440,500	—	—
Cinchona bark ..	2,300	7,800	1,300	400
Cinnamon ..	*3,400	*3,500	—	—
Cocoa butter ..	96,200	77,600	100	1,400
Copper sulphate ..	177,200	1,453,200	100	100
Great Britain ..	615,700	313,000	41,600	2,800
Ether ..	4,987,500	9,685,100	2,869,400	6,502,300
Formaldehyde ..	4,151,700	9,192,800	—	—
Ginger ..	6,700	—	504,600	976,600
Glycerin, crude ..	82,600	142,600	386,000	651,300
Glycerin, refined ..	23,200	11,200	400	400
Hydrogen peroxide ..	414,100	153,300	700	900
Iodides, metallic ..	400	800	—	—
Iodoform ..	281,000	349,900	65,500	469,100
Iodine, crude ..	47,100	305,900	14,700	2,100
Iodine, refined ..	205,100	249,800	2,300	700
Lactates ..	18,200	14,000	600	500
Lactates ..	500	400	400	100
Lactates ..	*100	*300	—	—
Lactates ..	23,500	27,900	100	500
Lactates ..	8,600	8,300	300	300
Lactates ..	7,800	7,500	100	300

	Imports		Exports	
	1924	1925	1924	1925
	Kilos	Kilos	Kilos	Kilos
Liquorice juice ..	2,200	8,400	1,209,700	1,141,300
Great Britain ..	—	—	363,500	251,100
Australia ..	—	—	21,500	25,300
Liquorice root ..	912,400	461,700	875,900	1,270,100
Great Britain ..	—	—	37,600	20,100
Australia ..	—	—	6,800	1,110,500
Magnesium carbonate ..	2,900	4,900	211,500	238,600
Manna ..	100	200	158,400	234,100
Medicinal plants, indigenous ..	892,500	975,600	2,143,600	2,438,500
Medicinal plants, exotic ..	481,500	655,900	34,300	20,200
Great Britain (total) ..	—	—	142,500	158,100
Medicinal specialties: Secret remedies ..	180,400	143,100	16,300	24,600
Others ..	153,600	143,000	365,500	475,000
Mercuric chloride ..	200	700	17,800	26,800
Mercuric oxide ..	200	—	6,500	6,500
Mercury ..	1,400	—	1,660,300	1,507,400
Great Britain ..	—	—	339,400	208,600
Milk sugar ..	1,900	700	160,800	47,400
Mineral water, salts, natural ..	5,800	4,500	23,200	29,600
Opium ..	729	1,672	156	44
Oil, bergamot ..	—	—	160,675	177,400
Oil, castor ..	310,600	62,800	222,700	307,600
Oil, clove ..	573	349	20	—
Oil, lemon ..	—	—	750,051	776,396
Oil, mandarin ..	—	—	4,007	5,427
Oil, olive ..	150,100	291,800	42,521,100	43,046,800
Great Britain ..	—	—	623,800	566,100
Oil, orange ..	—	—	126,801	119,317
Oil, peppermint ..	1,241	5,079	13,793	26,436
Oil, rose ..	42	239	2	95
Oils, citrous, n.o.e. ..	1,329	1,901	2,641	1,231
Oils, citrous (total) ..	721	1,031	284,403	260,258
Oils, terpenes ..	25,622	2,109,200	1,248	2,797
Pepper ..	99,500	95,900	800	1,900
Perfumes, alcoholic ..	313,400	350,700	34,500	51,100
Perfumes, non-alcoholic ..	—	—	39,900	32,200
Great Britain (total) ..	—	—	23,300	—
Perfumes, synthetic ..	76,675	113,081	1,563	2,367
Great Britain ..	—	9,520	—	—
Pharmaceutical preparations, n.o.e., compound ..	57,100	61,700	168,100	168,600
Pharmaceutical preparations, n.o.e., simple ..	62,800	34,100	173,700	188,200
Potassium carbonate ..	2,000	*1,900	—	—
Quinine and cinchona alkaloids ..	1,010,000	943,300	15,900	3,200
Great Britain ..	—	—	1,541	2,954
Quinine salts, except sulphate ..	3,695	3,522	—	19
Quinine sulphate ..	*1,411	*291	—	—
Resorcin ..	66,830	11,570	945	1,246
Saccharin ..	*1,142	*1,322	—	—
Saffron ..	7,600	2,900	—	—
Salicylates and benzoates ..	3,549	818	1,036	1,138
Soaps, common ..	16,600	16,400	14,800	17,900
Great Britain ..	*4,500	*5,800	—	—
Soaps, perfumed ..	3,052,900	2,679,900	2,924,700	3,375,100
Sodium carbonate ..	129,500	43,400	656,200	494,000
Spermaceti ..	99,000	126,700	71,800	151,200
Sulphur (tons) ..	18,007,500	9,454,400	231,700	324,400
Great Britain ..	20,300	7,500	—	500
Synthetic medicinal products ..	13	892	267,274	190,243
Synthetic products, arseno-benzols, issued as specialties ..	52,399	77,289	76,031	90,925
Vanilla ..	*14,371	*11,138	10,594	13,144
	6,830	8,414	123	15

* Amounts imported on Reparations Account.
n.o.e. = not otherwise enumerated.

FOR NECESSITOUS EMPLOYERS.—Settle Chamber of Trade has passed the following resolution: "That this Federation, having in mind the enormous sums compulsorily extracted from employers generally in payment of their share of the premiums for employees' health, pensions and unemployment insurance, and also that after meeting all claims in the health and pensions section substantial sums are left in the hands of certain approved societies, recommends that steps be taken at once to have a necessitous employers' clause added to the respective Acts of Parliament concerned, under which any employer who is compelled to suspend payment, and who has paid insurance for his hands for two or three years, shall receive from a central fund, to be set up for this purpose, a weekly grant of £1 for himself, 15s. for his wife and 7s. 6d. for each child under the age of fifteen, which grant shall be free from all process for the recovery of debt, the central fund to be built up by hypothecation of 1 per cent. of the monthly totals of the employers' contributions . . ."

World's Mercury Situation

It is rarely that we have seen so informative a circular as that issued by the United States Bureau of Mines, dealing with the quicksilver situation from a domestic standpoint. The circular has been prepared by J. W. Furness and R. M. Santmeyers, and its object is to call attention to the growing dependence of United States consumers of mercury upon foreign sources of supply. After dealing with the actual and potential uses of and substitutes for the metal, the authors give particulars of consumption in the United States, which average 18,000 to 25,000 flasks annually. Distribution of these amounts according to types of uses has been recorded with fair accuracy only for the war years 1917-1918. They were as follow:—

	Flasks. 1917.	Flasks. 1918.
Drugs and chemicals	8,500	12,180
Fulminate	4,850	12,218
Vermilion	3,130	1,900
Oxide anti-fouling paint ...	3,000	2,905
Electrical apparatus	2,700	2,637
Felt making (mostly hats) ...	1,700	1,800
Gold and silver milling ...	850	800
Instruments (thermostats, etc.)	630	676
Miscellaneous	1,000	1,000
	<hr/> 26,360	<hr/> 36,166

PRODUCTION

In 1877 the world's production was approximately 120,000 flasks, of which the U.S. produced 79,000. That year saw the maximum or peak, and since that date the output in America, in spite of assistance given by import duties and high prices, has steadily declined. In fact, the domestic production (1920-1925) was the lowest for any similar period since 1850. In 1911 imports exceeded exports for the first time, and since then domestic production has been steadily decreasing with corresponding increase in imports. This condition has developed during and in spite of a period of steady rise in price, with the exception of the war period, and to-day American consumers must depend upon Spain and Italy for the major portion of their supply. The circular gives the production of mercury from the major sources (U.S.A., Spain and Italy) from 1850 to 1925, these are followed by the rates of import duty in U.S. and foreign countries. The U.S. duty is 25 c. per lb., while Great Britain, France, Sweden, Denmark, Austria and Japan admit mercury free of duty. Canada charges $7\frac{1}{2}$ per cent., but imports from other British territory have a preferential duty of 5 per cent., a duty equivalent of $\frac{3}{8}$ c. per lb. is levied on all quicksilver imports into Italy, and in Spain the metal comes under the blanket clause for metals, which provides a $\frac{3}{8}$ c. per lb. duty. China levies an export duty of approximately 1 cent per lb.

DISTRIBUTION OF DEPOSITS

The largest and richest deposits are at Almaden in Central Spain, near the extreme western point of the province of Ciudad Real. The deposit has been mined practically continuously since Roman times, and has been owned and worked by the Spanish Government since 1645. The ore bodies are large, some of them attaining 36 feet in width and as much as 600 feet in length. The mine has been developed to a depth exceeding 2,000 feet. The available reserve has been estimated as at least 40,000 metric tons of metal. The production in the past two years has amounted to about 25,000 flasks per annum, and in 1924 the productivity per man was 18.48 flasks. The pre-war average cost of producing a flask was \$15, but since the war the working costs have been estimated at \$45 per flask. Deposits of minor importance are found in the provinces of Asturias, Badajoz, Granada, Santander and Valencia. As regards Italy, the principal deposits are those at Idria, which formerly belonged to Austria, and those of the Monte Amiata district. In 1918 the Idria mines were being worked by the Austrian technical staff, under the supervision of an Italian engineer. On November 12, 1920, the mines passed definitely into the possession of the Italian Government. As those mines have been operated since the time of the ancient

Etruscans, many of them have been worked out, and the area as a whole is rapidly approaching exhaustion. In 1923 the production per man per annum was 17.42 flasks, compared with 12.28 flasks in 1921. The mines of the Monte Amiata, mostly in Tuscany province of Siena, but partly also in the province of Grosseto, are the greatest producing mercury mines in Italy. At present in that area there are six important producing mines and a great number of smaller mines, some of which are idle. About 65 per cent. of the total output of this district is attributed to the Abbadia-San Salvador mine. In 1923 the province of Siena produced 28,061 flasks.

U.S. DOMESTIC PRODUCTION

From charts given in the circular it is conclusively shown that domestic production has shown a constant decrease since 1877, while the price trend has been increasing. Mercury is found in many States in the U.S., but only the production of California and Western Texas is comparable to that of Italy and Spain. Mining began in California in 1850, with a production of 7,723 flasks at a price of \$99.45 per flask, chiefly from the New Almaden mine, and the peak of production was reached in 1877, when nineteen mines produced 79,395 flasks at a price of \$37.30 per flask. In 1925 the production was 7,614 flasks from seven mines, and the average price was \$83.128. During the period from 1850 to 1925 the lowest average price for a year was \$28.23 in 1882, with a production of 52,682 flasks, and the highest price was that of 1916 of \$125.49, with a production of 21,045 flasks. In 1921 the production was the lowest so far made, viz., 3,055 flasks, and the average year's price was \$45.46. It must be assumed that unless new metallurgical methods are devised, which will materially decrease the cost of production, California will never again attain the production of 1882. It is of interest to note that this peak was reached with a price of \$37.30, and that during the war with a price of \$125.49 per flask and every incentive to produce, production was only 27 per cent. of the peak. This clearly illustrates that a time has been reached in the history of mercury production in U.S. when increased price does not result in increased production.

POLITICAL AND COMMERCIAL CONTROL

As already said, the Almaden mine of Spain has been owned and operated by the Spanish Government since 1645. The policy of the Government has been to award for a ten-year period to the highest bidder the output of quicksilver. For a number of successive periods a London firm was awarded the contract. During the period represented by June 1, 1912, to June 1, 1923, this firm bound themselves to sell the output of the mines, which they took f.o.b. at the reduction plants at Almaden at a basic price of £7 per flask. The contractor was to receive:—

1. A commission of $1\frac{1}{4}$ per cent. of the amount of the sale.
2. Six shillings per each flask shipped from Spain to London.
3. Ten per cent. of the amount by which the sale exceeded £8 2s. per flask.

During the period of this contract, the Spanish Government reserved 500 flasks annually for national requirements. The marketing of the product was thus controlled in London. This condition has led to the erroneous idea that the London firm who were awarded the contract controlled the world's price of mercury. It is obvious that prior to 1911 it was beyond the power of this firm to set a price, because the United States was an exporter of mercury, and the exportable surplus was the marginal production which regulated the world's price. With the termination of the contract with the London firm in the summer of 1923 the Spanish Government sold direct the output of quicksilver for a period of three years. This method of marketing the metal was not successful, and during the early part of 1924 a contract was given to another London firm for the sale of all quicksilver for a period of one year. At the expiration of this contract the Government awarded the sales agency to a newly-formed company called "The Sociedad General de Mercurio de Madrid" for the years 1925 and 1927, with the option of an additional year. The company was financed by the Banco de Credito of Madrid.

At Almaden, probably due to the long time that this property has been under Government control, labour has imposed many regulations which have caused inefficiency and decreased output. As an example, the men engaged in the actual breaking of the ore work only three days in a week in order to avoid mercurial poisoning. The methods of extraction are crude. Some of the original Bustamente furnaces built at Almaden in 1646 are still in operation. The mine run of ore is reported to contain 8 per cent. mercury, and the extraction from ore mined, based upon flasks produced, is 6 per cent. The indicated loss alone, namely, 25 per cent. of the original content, equivalent to more than half a flask per ton of ore, is four times as great as the average tenor of the ore treated in the United States, and possibly three times that of Italy. Since the world war the mercury mines of Italy have been controlled and operated by the Italian Government. The industry is on a thoroughly up-to-date basis, and the efficiency is as great as that developed in any other mercury-producing country. From a consumer's outlook the world's mercury situation would seem to indicate that in order to supply the demand the deposits of Spain will have to be drawn upon heavily. The largest known reserves are those of Spain. Of the two Italian fields, the Idria district is rapidly reaching exhaustion. It has been estimated that the Monte Amiata district will probably be able to maintain its present rate of production for twenty years. Considering the fact that the world's consumption of quicksilver for the last twenty years (eliminating the war period) has remained relatively constant, the present increased demand for storage batteries, meters, radio equipment and general electrical uses, as well as the potential demand that probably will be created by the introduction of the Emmett vapour boiler, indicates that in order to meet this increased demand, or even to maintain the present rate of consumption, more mercury will have to be produced by Spain. Heretofore, due to conditions already mentioned, there seems to have been no collusion on the part of producing countries for the creation or the maintaining of the price of quicksilver, although since 1919 Spain and Italy have had the power to control prices. The United States has attempted to increase production from time to time by variations in the import duty. At present quicksilver is selling for \$88 per flask. If the world's demand is to be met, without materially increasing the output of Spain, the present price will have to be increased in order to force production from Peru, Mexico, China, etc. Higher prices seem inevitable. The political as well as the commercial control of the sources of mercury, upon which the world must depend chiefly for its supply, rests at present with the Spanish and Italian Governments, in whose territory the major deposits occur.

Trade-marks Applied for

The figures in parentheses refer to the classes in which the marks are grouped. A list of classes and particulars as to registration are given in "The Chemist and Druggist Diary," 1926, p. 309.

(From "The Trade-marks Journal," July 28, 1926.)

- "SAPALCOL"; for medicinal chemicals (3). By Sapalcol Aktiengesellschaft für Pharmazeutische U. Kosmetische Präparate, 31 Vorgebirgstrasse, Köln-Ehrenfeld, Germany. 465,423. (Associated.)
- "LISTERINE"; for all goods (3). By Lambert Pharmacal Co., 2101 Locust Street, St. Louis, Miss., U.S.A. 469,574. (Associated.)
- Facsimile signature "Chas. H. Phillips"; for medicinal chemicals (3). By Proprietary Agencies, Ltd., 179 Acton Vale, London, W.3. 470,431. (Associated.)
- "EUCA-MUL BINZ" ("Binz" disclaimed); for a remedy for coughs, etc. (3). By Edward G. Binz Co., 3355 Glendale Boulevard, Los Angeles, California, U.S.A. 470,072.
- "HOMMELOGEN" and "HOMMATOGEN"; for food preparations (42). By Aktion Gesellschaft Hommel's Haematogen, Josephstrasse 20, Zurich, Switzerland. 468,836/837. (Associated.)
- "POMPEIAN"; for toilet articles (48). By The Pompeian Manufacturing Co., 2400 Payne Avenue, Cleveland, U.S.A. B458,940.
- "LE MUR"; for preparations for the hair (48). By W. S. Lewis, 717 Superior Avenue, Cleveland, U.S.A. 467,469.
- "BLUE SEAL VASELINE POMADE" on circle and en oblong floral label (flower device and "Blue Seal" disclaimed);

- for pomade made in U.S.A. (48). By Chesebrough Manufacturing Co., Con., 17 State Street, New York, U.S.A. 464,133. (Associated.)
- "ZOGLO"; for complexion powders and creams (48). By Emily Dutton, 30 Clifton Road, Maida Vale, London, W.9. 466,136.
- "LADYHINE"; for all goods (48). By Lotions, Ltd., 126 Mount Pleasant Road, Lewisham, London, S.E.13. 470,437.
- "NILAMY"; for perfumery, etc. (48). By Faudels, Ltd., 36 Newgate Street, London, E.C.1. 470,453.
- "FURSAC"; for perfumery, etc. (48). By Solport Brothers, Ltd., 184 Goswell Road, London, E.C.1. and W. Mac-lanachan, 11 Paultons Street, London, S.W.3. 470,595.

(From "The Trade-marks Journal," August 4, 1926.)

- "PANKINE" and "KINECHROM"; for photographic chemicals, etc. (1). By I. G. Farben-Industrie Aktiengesellschaft, Mainzer Landstrasse 28, Frankfurt-on-Main, Germany. 470,454/456. (Associated.)
- "CARTERS"; for fertilisers (2). By J. Carter & Co., West Barnes Lane, Raynes Park, S.W.20. 468,622. (Associated.)
- "VETECO"; for veterinary preparations (2). By J. R. Wood, The Iekles, London Road, Sleaford, Lincolnshire. 469,062.
- "FLIPP"; for insecticides, etc. (2), external medicated preparations (3), and for a liquid detergent (47). By Standard Oil Co., Constable Hook, Bayonne, New Jersey, U.S.A. 469,620/621/622. (Associated.)
- "BALSAM SWISS" with elaborate design ("M Z" and "Max Zeller" disclaimed); for balsam made in Switzerland. By Max Zeller Sons, 977 Bahnhofstrasse, Romanshorn, Switzerland. 467,642. (Associated.)
- "MELISKA"; for medicinal chemicals (3). By R. M. Wilkie, 28 Hildreth Street, Balham, London, S.W.12. 469,543.
- "HALEWORTH"; for ointment (3). By Moorfield Manufacturing Co., 3 Sugar Island, Newry, co. Down. 470,856.
- "MENKALS"; for medicated sweetmeats (3). By P. Hall, 21 Red Lion Square, Chesterton, Stoke-on-Trent. 470,472.
- "SONIA THE NERVE TONIC FOR EVERYBODY," etc., on square label device; for a medicine (3). By Anglo-Australian Chemical Co., 191 Queen's Road, Peckham, London, S.E.15. 463,442.
- "VELVATISSUE"; for toilet paper, etc. (39). By Interlake Tissue Mills Co., Ltd., River Road, Merriton, Ontario, Canada. 469,612. (Associated.)
- "IOSALT"; for food substances (42). By H. F. Cabell, 303 Wimbledon Park Road, London, S.W.19. 470,429.
- "PLU"; for powder puffs, perfumes, etc. (48). By A. Willk, 11 Rue de Chateaudun, Paris. 468,347.
- "BLUE PETER" with flag device; for perfumery, etc. (48). By J. Crosfield & Sons, Ltd., Bank Quay, Warrington. 470,638. (Associated.)
- "SAVEDEKAN"; for tooth brushes (50). By W. Taylor, 32 St. George's Street, Cape Town, S.A. 469,192.
- "VIVUM"; for preservatives for cellulose fibre (50). By J. S. St. Barbe Baker, 51 Andrews Road, Hackney, London, E.8. 470,084.
- "MARNATOR"; for feeding bottles (50). By S. Maw, Son & Sons, Ltd., 7-12, Aldersgate Street, London, E.C.1. 471,082.

(From "The Trade-marks Journal," August 11, 1926.)

- "KENGLOSSA"; for chemicals (1). By J. H. Fuller & Co., Ltd., 58 Minster Street, Reading. 471,077. (Associated.)
- "DAINTY DYES" with picture of dancing girl ("Dainty" disclaimed); for dyes (1). By Shand Brothers, Ltd., 20 Renfrew Street, Glasgow. 470,818.
- Picture of plough over "A.D. 1715" ("A.D." and "1715" disclaimed); for chemicals (2). By Allen & Hanburys, Ltd., Plough Court, 37 Lombard Street, London, E.C.3. 471,049. (Associated.)
- "HIGHTREE"; for unguents and balsams (3). By J. Hoogenboom, 62a Stationsweg, Rotterdam, Holland. 468,867.
- "RAMAK"; for medicinal chemicals (3). By C. Ramage, 119 Arisaig Drive, Mossbank, Glasgow. 469,976.
- "ANZYFAN BRAND"; for medicinal chemicals (3). By H. R. Napp, Ltd., 3 and 4 Clement's Inn, Kingsway, London, W.C.2. 470,127.
- "LECHE DE MAGNESIA DE PHILLIPS" on label device, including facsimile signature "Chas. H. Phillips" ("Phillips" and "Thos Chas. H. Phillips Chemical Co." disclaimed); for a medicinal preparation of magnesia (3). By Proprietary Agencies, Ltd., 179-181 Acton Vale, London, W.3. 470,306. (Associated.)
- "IOSALT"; for medicinal chemicals (3). By H. F. Cabell, 303 Wimbledon Park Road, London, S.W.19. 470,487.

Trade Report

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbiling, packing, etc. Qualities of chemicals, drugs, essential and fixed oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities.

42 Cannon Street, E.C.4, August 19.

GENERAL trading conditions continue much as previously reported this month, but the prospect of better business is regarded much more hopefully in view of the new negotiations in the coal dispute. There are few changes in crude drugs, Matto Grosso ipecacuanha remaining firm, likewise cascara sagrada and senega, although business in the two latter drugs is slow. Beeswax is easier owing to arrivals and lack of demand. Saffron is dearer. Hempseed is lower and English mustard seed is easier. Dutch caraway is again higher, but subsequently eased. In the essential oil group more interest has been shown in some of leaders. Star anise to arrive, Dutch caraway, lemon and French lavender are dearer; Java citronella is easier. Japanese peppermint is unsettled with speculators manipulating prices, while new crop American is easier, with buyers holding aloof. In the pharmaceutical chemicals group, business shows no improvement, and the few price changes include an easier feeling in B.P. potassium permanganate, B.P. tannic acid and thymol; tartar emetic is firmer. Phenacetin and phenazone are unchanged at last week's reduction. Among industrial chemicals, continued slack markets are reported, but, should the coal-mining dispute be settled, a revival is looked for. Ammonium chloride is slightly easier, and formaldehyde is dull and weak. Potassium chlorate and sal ammoniac are cheaper. There is no change in coal tar products, the lack of supplies continuing. Among the so-called vegetable oils, business has been decidedly quiet, and a number of products have declined. Castor is dull and easier, and cottonseed is lower. Palm and palm kernel oil are cheaper. Linseed and turpentine are irregular.

Higher	Firmer	Easier	Lower
Alkali, 58 per cent. (soda ash)	Cassia oil (c.i.f.)	Agar-agar	Ammon.
Anise star oil (c.i.f.)	Lavender oil (Fr.)	Bergamot oil (c.i.f.)	chloride
Antimony (crude)	Tartar emetic	Castor oil	Cottonseed oil
Caraway oil		Mustard seed (Eng.)	Hemp seed (Manchurian)
Glucose		Palm oil	Sal ammoniac
Lemon oil		Palm kernel oil	Thymol
Saffron		Pepsin	
		Potash chlorate	
		Soda acetate	
		Tannic acid	
		Wax, bees'	

Crude Drugs, etc.

ALMOND OIL.—Importers quote B.P. sweet at 3s. 4d. per lb., and apricot or peach kernel oil at 2s. 4d. per lb.

ALOES.—The exports from the Union of South Africa during February amounted to 168,920 lb. (£1,309), against 47,159 lb. (£421) in February 1925. During the two months ended February 28 the exports were 230,007 lb. (£1,740), against 94,728 lb. (£804) for the corresponding period of 1925.

ANTIMONY.—The undertone is firm, although there has been but little change. English regulus high-grade is £74 10s. to £75 5s. Chinese refined on the spot and for early arrival is £65, but parcels afloat might be secured at around £62, although shippers are asking £74 for near shipment. Crude on the spot is £41 per ton, and £39 c.i.f. for shipment. Crude for forward shipment is dearer at £45, and spot is £45 to £47 per ton.

BUCHU.—The exports from the Union of South Africa during February amounted to 23,175 lb. (£1,080), against 29,119 lb. (£3,631) in February 1925. During the two months ended February 28 the exports were 25,258 lb.

(£1,222), against 34,902 lb. (£4,193) for the corresponding period of 1925.

CADMIUM.—There is a steady demand for Australian metal at 1s. 9d. per lb. for fair-sized lots, and American is 1s. 10½d. per lb.

CAMPHOR (REFINED).—Japanese slabs are steady, with small sales at 2s. 10½d. per lb. on the spot.

CARAWAY SEED.—Dutch in the interval has further advanced, but subsequently eased, new crop offering at 38s. 6d. per cwt. c.i.f. for August-September shipment.

CASCARA SAGRADA remains firm and market is still very strong. Although first-hand sellers quote 1926 crop at from 75s. to 78s. and even 80s. per cwt. c.i.f., there are sellers from second hands in five-ton lots at 70s. c.i.f.; 1925 crop in one direction is quoted at 75s. c.i.f., with second-hand sellers at 70s. c.i.f.; 1924 crop is quoted at 80s. c.i.f., with second-hand sellers at 75s. c.i.f. On the spot, 1924 bark is quoted at 75s. to 80s., according to seller.

CHAMOMILES.—First pickings, Belgian, of the new crop have been offered this week at 140s. per cwt.

CLOVES.—Zanzibar continue slow of sale at from 9½d. to 9½d. per lb. on the spot, according to quality, and for September-November shipment 8½d. per lb. c.i.f. is quoted, being a trifle easier. The landings in London during the week ended August 14 were nil, and the deliveries 811, leaving a stock of 11,626 bales, against 10,860 bales in 1925 and 24,369 bales in 1924. Up to August 14 the landings of Zanzibar in London have been 9,759, against 9,467 in 1925, while the deliveries amount to 12,333, against 13,711 last year.

COD-LIVER OIL.—No alteration has taken place in the Norwegian market since July 6. The sales are still insignificant at about 107s. per barrel, c.i.f. London, for non-freezing steam-refined quality.

CORN PRODUCTS, ETC.—Guaranteed water-white glucose (corn syrup) is now 21s. 9d. per cwt. for August-October delivery, ex store, London. Dutch maize starch powder (cornflour) is 13s. 3d. per cwt. on the spot. American, for July-September delivery, 13s. 3s. per cwt. Pearl starch for July-September delivery is 12s. 9d., ex store, London. Dutch farina is 14s. 6d. per cwt. on the spot, and 14s. per cwt. f.o.b. for prompt shipment. Dutch maize starch crystals is 20s. on the spot, and American for July-September delivery is 19s. 6d. per cwt., ex store, London. Dutch dextrin is 22s. 6d. to 24s. 6d. per cwt. as to quality. American canary for July-September delivery is 17s. 3d., and white for July-September 17s. per cwt., ex store, London.

ERGOT.—Although business was done last week in old crop Russian at 2s. 3d. per lb. c.i.f., it is now difficult to get firm quotations from shippers. September-October shipment of new crop Russian is said to be 2s. 6d. c.i.f., but offers are not firm.

GINGER is steady, West African offering on the spot at 37s. per cwt. and to arrive at 33s. c.i.f. Japanese on spot is 60s. Small Jamaica is 65s. to 75s., and bold 85s. to 100s.; fair washed rough Cochín is 65s., and rough brownish Calicut 70s. to 75s. per cwt.

GUM ACACIA is steady, with natural Kordofan sorts offering at 50s., and cleaned at 52s. per cwt. on the spot; to arrive, 45s. c.i.f. and 47s. c.i.f. is quoted respectively.

HONEY has been slow of sale for some time past, and values remain easy. Jamaica is offered at from 37s. 6d. to 47s. 6d. for ordinary manufacturing to pale set, and San Domingo 37s. 6d. to 48s. per cwt. as to quality.

IPECACUANHA remains firm, first hand sellers quoting 14s. 6d. for Matto Grosso.

MAGNESIUM is in a moderate demand, home-made ingots and sticks selling at 3s. 9d. to 4s. 3d. per lb.; powder is about 5s. to 6s. per lb., according to quality.

MENTHOL, although quiet, advanced 6d. per lb. to 19s. towards the close of last week, and this quotation is maintained for the two leading brands. To arrive, July-August shipment is 18s., September-October shipment is 17s. 3d., October-December 16s. 6d. c.i.f., and January-March 1927, 15s. 6d. c.i.f.

MERCURY.—The trade demand has been quiet, and the small offers made of spot metal are finding buyers at about £15 7s. 6d. to £15 10s. The price in America eased somewhat lately, which is attributed to better offers from Italy. According to a consular report the Almaden mines in Spain have issued their statement for the fiscal year

1924-1925, and this mentions that extraction during that period represented 19,491 metric tons of mineral, which yielded 35,530 bottles mercury. The increase in mineral compared with the previous fiscal year amounts to 10,479 tons, and the yield of mercury shown above shows an excess of 6,506 bottles over the average production for the period 1919-1924.

PIMENTO is slow of sale, sellers quoting 6½d. per lb. on the spot, and 50s. per cwt. c.i.f. for September-October shipment.

RUBBER is decidedly better, especially for spot, which is fully ½d. per lb. higher on the week. The improvement is mainly due to a change in sentiment, and there has been some good buying of spot. The questionnaire figures of American arrivals and consumption, the shipments from Malaya during the first half of August, and the heavy increase in stocks on this market last week were all very "bearish" features; but, in spite of this, the market has remained remarkably firm, and at any slight decline there has been fairly steady buying. The demand for off grades continues strong, and any cheap lot is eagerly snapped up by the Continent and America. Stocks last week were again increased, as anticipated in our last report, by 1,341 tons, and the London stock now stands at 29,313 tons. Quotations, Wednesday, 5 p.m.:—No. 1 standard ribbed smoked sheet, spot and August, 1s. 7½d.; September, 1s. 7½d.; October-December, 1s. 7½d. per lb.

SAFFRON is dearer, importers quoting genuine Valencia at 90s. to 95s. per lb.

SEEDS.—The seed market continues dull and prices unchanged. CANARY SEED.—Mazagan has sellers at 21s. per cwt. on the spot, Saffi 20s. 6d., good bold Spanish 32s. 6d., and small 24s. 6d., ex wharf, London. CUMIN SEED.—Maltese is 30s. for old crop on the spot, and Morocco on the spot is 32s. 6d. to 35s. ANISE.—Spanish is 50s., and Russian 42s. 6d. CORIANDER SEED.—Morocco is 14s. 6d. on the spot, and 13s. c.i.f. is quoted for new crop. DILL SEED is 20s. FENUGREEK SEED.—Morocco is 11s. 6d. to 12s. on the spot. HEMPSEED.—Manchurian, 13s. per cwt. LINSEED.—Mazagan, 20s. on the spot. MUSTARD SEED.—English is a trifle easier at 54s. 6d. per cwt. on the spot.

SENEGA.—The recent advance in senega, like cascara sagrada, has enabled second-hand sellers to offer below first hands, there being quotations from the former source at about 3s. 1d. c.i.f., compared with 3s. 3d. c.i.f. from first hands. Spot remains at 3s. 2d. Demand is quiet.

SHELLAC is steady, with usual standard TN orange quality offering at 125s. to 130s. per cwt.; fine orange at 140s. to 200s.; and AC cakey at 130s. To arrive, TN for August-September is quoted at 111s., and October at 112s. c.i.f., with sales thereat. The sales for delivery include October at 122s. to 122s. 6d.; December, 118s. to 120s. Calcutta spot is rs. 48.8.

WAX, BEES'.—Owing to arrivals and little demand prices are easier. East African is £8 15s. to £8 17s. 6d.; Abyssinian, £8 17s. 6d.; and Benguela, £8 12s. 6d. per cwt.

Essential Oils

A LITTLE more interest has been taken in several essential oils. Dutch caraway, as we inferred last week, is dearer. Star anise is more inquired for and is not plentiful on the spot. French lavender is dearer. Eucalyptus looks as if it will improve. Lemon is higher both on the spot and to arrive. Given a small general consuming demand many other oils would undoubtedly improve in value.

The following are the quantities and values of natural essential oils (other than turpentine) imported into and re-exported from Great Britain during July, 1926, compared with the same months in 1924 and in 1925, also for the seven months in the respective years:—

		1914	1925	1926
July imports (other than turpentine)	lb.	331,080	204,675	372,998
	value	£107,212	£58,394	£90,456
Jan.-July imports do.	lb.	2,318,003	2,374,763	2,786,898
	value	£668,109	£729,529	£871,507
July re-exports do.	lb.	98,968	75,020	68,421
	value	£40,578	£31,367	£24,813
Jan.-July do. do.	lb.	610,596	611,359	501,033
	value	£225,043	£235,027	£200,213

ANISE (STAR) is dearer to arrive and more scarce on the spot, business having been done in both positions; 2s. 11d.,

less discount and tret was paid for leads and cases, and 3s. is quoted for further lots; the c.i.f. price for leads is now 2s. 6½d., after business had been done at a slightly lower figure. On the spot two tins in a case is quoted at 2s. 9d., and in drums 2s. 6d. net.

BERGAMOT.—The arrival position is not quite so strong owing, we understand, to the demand from abroad having quieted down and the Palermo market without many inquiries. It is thought, however, that some sales have yet to be covered, and it depends largely on the way in which these requirements are provided for whether there will be a sharp rise or not. Value c.i.f. is stated to be 23s. 9d. to 24s.; values on the spot unchanged.

CAMPOR, in drums, is quoted at 62s. 6d. per cwt. for white.

CARAWAY.—Our last report pointed to probable higher prices, and this seems to have come more quickly than we anticipated, and the present position seems to be that values are now between 7s. 9d. and 8s. 11d. per lb., according to quantity, and the market may easily "get out of hand" during the next few weeks. The seeds seem to show the way with a further increase of 10 per cent. in value.

CASSIA, like so many oils, is short on the spot; for prompt delivery 3s. is asked; delivery in four to five weeks is 7s. 6d., whilst in some directions the c.i.f. price is dearer by 6d. per lb. Last c.i.f. business reported was done at 6s. 6d., but at the close 7s. c.i.f. is quoted.

CITRONELLA.—Ceylon is quoted on the spot at 1s. 7d., and to arrive 1s. 6½d., c.i.f. Java has lapsed to spot 2s. 4d. and 2s. 3d. c.i.f.; no business is reported.

The exports from Ceylon from January 1 to June 30, 1926, were 649,057 lb., against 689,651 for the corresponding period of 1925; exports for the corresponding period of 1924 and 1923 were 685,571 lb. and 631,421 lb. respectively. The following were the principal destinations, the figures (lb.) in parentheses being those for 1925:—To U.K., 244,751 (164,058); U.S.A., 236,761 (357,254); Germany, 36,370 (33,174); India, 24,823 (32,577); Victoria, 13,643 (22,212); France, 12,803 (36,319).

EUCALYPTUS.—Sales of 70 to 75 per cent. cineol are reported at 1s. 8d. to 1s. 8½d.

GERANIUM.—African is quoted dearer at 11s. 6d., and Bourbon at about 13s. to 13s. 3d. per lb.

LAVENDER.—It would appear as if the new French crop is going to be short, and advantage is already being taken of this fact to push up prices at the source and create a scare. It will be remembered that last year similar tactics were indulged in and buyers rushed in, to their ultimate regret. Good oil of last year's crop is quoted at 17s. to 22s. per lb., and the value of the new crop is from 18s. to 21s. per lb.

LEMON.—A Palermo report states: "Although the demand from abroad continues quiet, local inquirers have developed and forced the market up and that new crop prospects are not considered so good." On the spot values have advanced and quotations range from 8s. to 8s. 6d. per lb., and c.i.f. at from 7s. 10½d. to 8s. 3d. We do not hear of much business passing, and any increase in values so late in the season and in the present condition of trade is not likely to influence much general buying.

LEMONGRASS is quoted at 3s. 6d. per lb. on the spot and at 3s. 5d. c.i.f.

PATCHOULI.—Singapore oil has been selling at from 22s. 6d. to 23s. per lb. on the spot.

PEPPERMINT.—Nothing new is reported in new crop American natural tin oil; offers are being made to cable out 43s. per lb., provided the shipment is September-October; against that it is said why for so late a shipment? The buyer would be better advised to take a risk and hold aloof (if the shipment offered is so late), as indications point to lower prices for this side if the trade is to be done here. Japanese demethylised seems unsettled, and those who endeavour to make the market must have it one way or the other; hence, immediately it is reported quiet, it is artificially depressed. The spot position appears to be steadiest at 10s. 6d. per lb.; July-August is 10s. 9d. c.i.f.; August-September shipment is 10s. 6d. c.i.f.; September-October is 9s. 10½d. c.i.f.; October-December, 8s. 10½d. c.i.f.; and January-March, 1927, 7s. 10½d. c.i.f. It is reported there are buyers for most of the above positions at 3d. to 4½d. per lb. less. Italo-

Mitcham of good quality is quoted at 36s. per lb., and new crop at 30s. c.i.f.

SPEARMINT is quoted at 35s. per lb. on the spot for American, and for shipment the higher price of 40s. c.i.f. is quoted.

The following arrivals have taken place from the countries named during the period August 5 to 11 inclusive: Almond (Fr.), 21 cs.; anise star (China), 75 cs., 5 drms.; bergamot (It.), 7 cs.; bois de rose (Fr.), 3 drms.; cajuput (Java), 26 cs.; oananga (Java), 1 dr.; oassia (Ch.), 5 cs.; cedarwood (U.S.), 5 drms.; citronella (Guatemala) 9 drms., (Java) 3 drms.; geranium (Algeria), 3 drms.; juniper (Germ.), 1 cs.; lavender (Sp.) 1 dr., (Fr.) 5 cs.; lemon (It.), 17 cs., $9 \times \frac{1}{2}$ cs.; lime (Br. W. Ind.), 3 cs., 4 drms.; lemongrass (Brit. Ind.), 1 dr.; patchouli (Straits S.), 5 cs.; peppermint (China) 10 cs., (Fr.) 2 cs., (Japan) 5 cs., (U.S.) 7 cs.; petitgrain (Argentina), 7 cs.; pimento (Germ.) 1 cs., (Br. W.I.), 1 dr.; pine (Germ.), 2 cs.; rosemary (Sp.), 3 dr.; sassafras (U.S.), 2 cs.; spearmint (U.S.), 7 cs.; undescribed (France), 5 cs.

The following arrivals have taken place to London during the period August 11 to 17 inclusive:—Anise (France), 1 cs.; aruocaria (Australia), 8 os.; bergamot (Italy), 3 cs.; bois de rose (Fr.), 3 cs.; caraway (Holl.), 2 dms.; cassia (China), 35 cs.; camphor (China) 31 dms., (U.S.) 2 cs.; cedarwood (U.S.), 4 dms.; citronella (Java) 18 dms., (Cey) 4 dms.; geranium (Algeria) 5 dms., (France) 2 dms.; ginger (U.S.), 2 cs.; gingergrass (B. Ind.), 1 cs.; juniper (Germ.), 3 cs.; lemon (Italy), 131 cs.; lemongrass (B.I.), 1 dm.; nutmeg (U.S.), 2 cs.; orange (It.), 10 cs.; peppermint (Japan) 5 cs., (U.S.) 3 cs.; sandalwood (Australia) 50 cs., (Germ.) 1 cs.; undescribed, 15 cs., (Fr.) 3 cs.

Pharmaceutical Chemicals, etc.

The volume of business done shows no improvement on the past few weeks of quiet markets and quoted prices show little change. Potash permanganate, B.P. tannic acid and thymol are easier; tartar emetic is firmer.

ACETANILIDE continues to be quoted from 1s. 6d. to 1s. 6½d. per lb. for B.P. crystals and powder. Business has remained quiet.

AMIDOPYRIN is a dull market at about 12s. per lb.

ASPIRIN.—A fair business on limited lines continues at unchanged prices: good brands offer at from 2s. 4d. to 2s. 4½d. per lb., according to quantity.

BENZOIC ACID (B.P.) is steady, with a moderate business, mostly for forward delivery: British is 2s. 1½d. to 2s. 3d. per lb., ex works, according to quantity; Continental, practically free from chlorine, 3s. 3d. spot, in small parcels.

BENZONAPHTHOL is steady and meets with occasional small business at 3s. 3d. per lb., in five-kilo lots.

BROMIDES.—Conditions are steady at last week's prices, but business is far from good: ammonium, 2s. 1d. to 2s. 2d. per lb.; potassium, B.P. crystals and granular, 1s. 8½d. to 1s. 9d.; sodium, B.P., 1s. 10½d. to 1s. 11d. per lb.

CALCIUM LACTATE has been moving fairly well with prices steady at 1s. 3d. to 1s. 4d. per lb., according to quantity.

CITRIC ACID is unchanged and the market seems steady; business, however, has been quiet: quoted from 1s. 3½d. to 1s. 3½d. per lb., less 5 per cent. for B.P. crystals, and about the same rates for forward delivery.

CREOSOTE, B.P., is steady but quiet at 1s. 10d., in demi-johns.

CREOSOTE CARBONATE is more or less lifeless at about 6s. 3d. per lb.

GUAIACOL CARBONATE has been dull and prices are easy for quantities at 7s. 2d. to 7s. 3d. per lb.

HEXAMINE continues fairly steady with business rather poor: free-running crystals 2s. 5d., and powder 2s. 6d.; ordinary material about 2s. 4d. per lb. for quantities.

HYDROQUINONE continues steady, but business has fallen off lately: quoted at about 4s. 3d. to 4s. 6d. per lb.

LACTIC ACID (B.P.) continues quite steady with fair small business being done: quoted from 2s. 3d. per lb., in demi-johns; technical, 50 per cent. by weight, £41 per ton net.

MENTHOL (SYNTHETIC).—English makers quote from 10s. 6d. to 12s. per lb., according to quantity.

METHYL SALICYLATE continues to be offered at about 1s. 4½d. per lb., in carboys, and a shade less might be taken for good business.

METHYL SULPHONAL is very quiet at about 15s. 3d. per lb. MILK SUGAR.—Finest Dutch (B.P.) is still 62s. to 64s. per cwt.; German (B.P.), 61s. to 63s. per cwt., according to quantity.

PARAFORMALDEHYDE (100 per cent. powder) is steady at 1s. 9d. per lb. for quantities, with a moderate business done.

PARALDEHYDE is steady but quiet at from 1s. 2d. to 1s. 4d. per lb., according to quantity and packing.

PEPSIN is easier: B.P. 1:2,500 powder or granular is 7s. 3d. net, and 1:5,000 powder 15s. net.

PHENACETIN.—There has been no further decline in values, but business remains quiet: quoted from 3s. 9d. to 3s. 10d. per lb.

PHENAZONE remains dull, but prices are maintained at last week's cheaper rates of 5s. 9d. to 5s. 10d. per lb.

PHENOLPHTHALEIN shows no change, with dealers offering on a quiet market from 4s. to 4s. 1d. per lb.

POTASSIUM PERMANGANATE (B.P.).—Market easier, but still quiet: quantities in two-cwt. drums, 6½d.; one-cwt. drums, 6½d. per lb.

POTASSIUM SULPHOGUAIACOLATE remains flat at 5s. 3d. to 5s. 6d. per lb.

RESORCIN continues very quiet, but prices are so far held at 4s. 9d. to 5s. per lb. for quantities.

SALICYLIC ACID (B.P.) continues fairly steady, although competition for the limited business passing is keen: quoted at about 1s. 3d. to 1s. 3½d. per lb., according to quantity.

SALOL continues steady, but is in no great demand: dealers offer from 3s. 3d. per lb.

SODIUM BENZOATE (B.P.) is unchanged at about 1s. 8d., and less for quantities to arrive.

SODIUM DIETHYLBARBITURATE remains flat at about 10s. per lb.

SODIUM SALICYLATE (B.P.) continues fairly steady and unchanged; business quiet: crystals, from 1s. 9d. for quantities; powder, about 1s. 9d. per lb.

SULPHONAL is more or less lifeless at from about 10s. 3d. per lb.

TANNIC ACID.—B.P. *levis* has gone back to the old rate of 2s. 9d. per lb. for one-cwt. lots in kegs; small quantities, 2s. 11d. per lb.

TARTAR EMETIC is slightly firmer but not active: dealers quote 43 to 44 per cent. technical at 11½d. per lb. to arrive; B.P., about 2s. per lb.

TARTARIC ACID (B.P. crystals).—Conditions seem quite steady, although business has been rather slow: quoted from 11½d. to 11½d. per lb., less 5 per cent. for foreign, according to quantity.

TERPIN HYDRATE is unwanted: supplies in quantities offered from 1s. 6d. per lb.

THYMOL is easier, with B.P. fine white crystals offering at about 11s. 6d. per lb. in one-cwt. lots.

VANILLIN continues unsettled: quoted at about 20s. to 21s. per lb., with any important business at lower rates.

Among the chemicals imported into London which have paid Key Industry duty are the following: Argyrol, £700; butanol, £1,750; caffeine, £130; ethyl carbonate, £113; hydrochloride, £260; metaldehyde, £584; sodium salicylate, £215; vanillin, £223; undescribed chemicals, £2,746.

Industrial Chemicals, etc.

London, August 18.

SLACK markets are reported from all quarters, although there is a fair amount of inquiry for forward positions which would probably develop into business with the end of the coal mining dispute. Isolated and slight reductions in prices are recorded, but these do not affect the general steady tone of the market.

ACETIC ACID is unchanged, and the market seems fairly steady, but business is anything but brisk: 80 per cent. technical, £37; 80 per cent. pure, £38 per ton, in barrels; glacial, pharmaceutical, 99 to 100 per cent., £65 10s., in glass demi-johns; glacial, in barrels, £55 per ton, ex wharf.

ACETONE.—Actual sales prices are still a matter of negotiation, and it is evident that bottom has not yet been reached under the new competitive market: B.G.S., in drums, £72 per ton, nominal. Business has been done at about £70.

ALUM continues very quiet, with spot parcels of lump in casks offering from £8 10s. per ton; slightly cheaper prices for quantities to come forward.

AMMONIUM CHLORIDE is slightly cheaper this week, with dealers offering quantities of grey galvanising at about £21 10s. per ton, in casks. Market remains quiet.

AMMONIA.—Anhydrous has been in occasional and small request on spot, with dealers' prices for 99.95 per cent. in loaned cylinders, about 1s. 1½d. per lb., carriage paid. Cheaper prices for contracts.

ARSENIC is quite steady, and Cornish agents have done a fair business at £13 5s. per ton, f.o.r. mines for 99 per cent., but it is claimed that business can be done at a little less. There is practically no foreign arsenic offering here, while it is stated that this also applies to American.

BARIUM CHLORIDE remains quiet, with prices easy at £9 15s. per ton, in casks, for 98 to 100 per cent. prime white crystals.

BARYTES has been in fair request at £3 7s. 6d. to £5 15s. per ton, according to quantity and quality, c.i.f.

COPPER SULPHATE.—There has been rather more demand for export and f.o.b. prices range from £23 15s. to £24 5s. for casks, less discount.

CREAM OF TARTAR at last week's cheaper prices seems steady, but there is nothing like a brisk demand: quoted from 75s. to 76s. per cwt., less 2½ per cent. for foreign make.

EPSOM SALT continues quiet on spot, with commercial quality offering from £5 upwards per ton, in single bags, ex store.

FORMALDEHYDE is dull and weak as quoted at £40 per ton for 40 per cent. by volume. Lower prices would be taken for quantities.

FORMIC ACID keeps very steady, although in no great demand: 85 per cent., £52 10s.; 90 per cent., £54 10s. per ton, in carboys, ex wharf.

GLAUBER'S SALT remains dull, with spot parcels offering from £3 10s. per ton and upwards, in single bags, ex store.

LEAD PRODUCTS.—Lead acetate is slightly dearer on spot, but still quiet: brown, £41; white, £43 5s. per ton, ex store. Red lead, imported, £39, c.i.f. London. White lead, dry, £38 10s.; ground in oil, £40, c.i.f. London. At the close the market, although rather quiet, was very steady.

LITHOPONE continues to meet with fair business, and prices are steadily maintained. Best brands of Continental red seal, £20 to £20 10s. per ton, in casks, ex store. Cheaper prices for contracts for forward delivery.

OXALIC ACID is fairly steady, but in poor demand at 3½d. per lb., spot.

POTASH CAUSTIC is steady under Convention prices at £27 10s. per ton, for spot 88 to 92 per cent. solid, in drums. Cheaper prices for contracts. Business is not of much account.

POTASSIUM CARBONATE is unchanged, although business has been slow for some weeks: 90 to 92 per cent., £24 10s.; 96 to 98 per cent., £26 per ton, in casks.

POTASSIUM OHLORATE is weaker, and now quoted at 3½d. for powder and 3½d. for crystals, in kegs, in quantities. Market remains quiet.

POTASSIUM PERMANGANATE has met with a poor demand, and prices are very keen. Commercial quality, in two-cwt. drums, from 5½d. to 5½d. per lb., in quantities.

POTASSIUM PRUSSIAN is still quoted at 7d. per lb. for yellow in casks, but a slightly lower price would probably be taken for important business.

SAL AMMONIAC.—Dealers' prices have been reduced, but business is still very poor: dog-tooth crystals, £29 5s.; medium, about £28; fine white crystals, about £19 per ton, in casks.

SODIUM ACETATE is steady, with a further slight fall in prices recorded: spot and forward, £20 10s. to £21 per ton.

SODIUM HYPOSULPHITE continues unchanged, with business on a limited scale. Dealers offer pea crystals in one-cwt. kegs at £15 7s. 6d. per ton, and commercial lump at 29 per ton, in casks. British makers' price for pure crystals for home consumers, £15 10s. per ton, carriage paid to buyer's station.

SODIUM NITRATE is nominal, with the market idle: 96 per cent., £13; refined, £13 7s. 6d. per ton, f.o.r. docks, London.

SODIUM NITRITE (100 per cent. basis) is steady but quieter at £21 10s. per ton, and 22s. per cwt., decks, London.

SODIUM PRUSSIAN is very slack at about 3½d. per lb., in casks, for quantities.

SODIUM CARBONATE.—The makers of soda ash (58 per cent. alkali) have advanced their list price by 5s. per ton to £7 per ton, f.o.r. works.

SODIUM SULPHIDE remains slack, with dealers quoting 60 to 62 per cent. solid at £10 10s., and broken £11 10s. per ton, in drums, ex wharf.

SULPHUR.—There is a fair demand, and the tone is steady. American crude is £5 17s. 6d. per ton delivered Manchester, and quotations for refined are £12 to £12 5s. for Sicilian flowers and £10 to £10 5s. for roll, all delivered London warehouses.

ZINC PRODUCTS.—There has been a renewed considerable advance in raw zinc, chiefly due to another notable decrease in the American stocks, and the feeling in allied products is harder. There is a fair demand for zinc oxide, and home makers are quoting about £39 up to £45. Zinc ashes range from £16 upward, based on 70 per cent. free on trucks. Zinc dust is quoted £43 to £48 10s. a ton, according to description.

COAL TAR PRODUCTS, ETC.—There is little change to report. Production at works remains very small, and the consequent lack of supplies is the main feature. **ANILINE OIL** is quoted nominally at about 9½d. per lb., in loaned drums, carriage paid. It is understood that consumers have been granted dyestuffs licences to permit of some imports. **ANILINE SALT** is very short, with the nominal prices at 9½d. to 10d. per lb., packages extra, carriage paid. **BETANAPHTHOL** might

be obtained in one or two small lots; quoted nominally at about 1s. per lb., carriage paid. **TOLUOL** is practically unobtainable at the moment in any quantity; no quotations on the market. **XYLOL** is firm, with only a limited supply available: pure, 3s. 6d.; commercial, 2s. 9d. and upwards per gallon, ex works. **CARBOLIC ACID** is steady, but is meeting with only a moderate business: quoted from 4½d. per lb., f.o.b. in quantities. **CRESYLIC ACID** continues very scarce in supply, with pale 97 to 99 per cent. quoted nominally at about 2s. to 2s. 2d. per gallon, f.o.b. **CREOSOTE OIL** is fully maintained as quoted, with supplies very limited: ex works, 6½d. f.o.b.; 7½d. per lb., in bulk quantities. **NAPHTHALENE** has been quieter: powder, £13 10s.; balls, £14 15s.; crystals, £13 7s. 6d. per ton, in cases, ex wharf. Pure **METHYL ALCOHOL** is dull and easy at about £47 for one-ton lots, in drums, ex wharf. Cheaper prices for quantities to arrive. **PYRIDINE** remains neglected, with offers at about 17s. per gallon, f.o.b. **PITCH** is very firm, with good inquiry for forward positions. Nominal quotations from 90s. per ton, f.o.b. East Coast.

Fixed Oils, etc.

BUSINESS has been decidedly quiet throughout this market, and a number of products are lower or are unsteady at the close. **ACID OILS**.—Business remains slack and quoted prices are easy: coconut and palm kernel, 40s. 6d.; groundnut, 37s. 3d.; soya, 32s. 3d. spot. **CASTOR**.—Quoted prices are cheaper, with the market still dull: pharmaceutical, 49s.; first pressings, 44s.; second pressings, 42s. spot, in barrels in not less than one-ton lots. **COCONUT**.—Business remains quiet, with quoted prices about the same: deodorised, spot, 53s. 6d.; Ceylon, 45s. 3d. c.i.f.; Cochin, 51s. c.i.f. **COTTON** is very quiet, and values for all grades are lower: deodorised, 50s.; common edible, 48s.; seapmaking, 45s.; crude, 42s. spot. **GROUNDNUT** remained quiet throughout: deodorised, spot, 55s.; crude Oriental, 46s. c.i.f. **PALM KERNEL** is quiet and slightly easier: deodorised, 47s. 9d.; crude, 44s. spot. **PALM**.—Business has been very poor all the week, and prices for all grades show a slight fall, market closing rather unsteady: Lagos, 37s.; softs, 36s. 6d.; mediums, 37s.; hards, 37s. 10d.; bleached, 39s. 9d. spot. **RAPE** is nominal owing to lack of interest: refined, 55s.; crude, 52s. spot. **SOYA** continues slack: deodorised, 44s.; crude, 40s. 9d. spot. **LINSEED** (raw, naked).—After moving to higher figures early in the week the market is now irregular: on spot, 34s. 3d.; August, 33s. 3d.; September-December, 33s. 10½d.; January-April, 34s. 4½d. Boiled oil, 37s. spot. Hull, on spot, 34s. 10½d.; September-December, 35s.; January-April, 35s. 3d. **TURPENTINE**.—The market fluctuated in sympathy with American cable advices, which were easier latterly. Realisations accounted for the easier tone early in the week, when September-December was offering at 66s. and even less, but the tone firmed up again, and this position closed on Wednesday at 66s. 9d.; spot is 65s. 3d. Last week's deliveries were good, being 2,032 barrels, making an aggregate of 71,975 barrels since January 1, which compared with 59,718 barrels for the same period last year. Stocks increased again a little, being 13,170 barrels, which together with the quantities landed and afloat made the London visible supply 19,572 barrels, this comparing with 35,754 barrels same date last year. **RESIN**.—There was a further advance, although business was restricted at the current high level of prices, consumers being reluctant to buy beyond early requirements. C.i.f. quotations for American were as follows: B/D, 30s. 9d.; E to M, 33s.; N/WG, 34s.; and WW, 34s. 10½d. Spot prices command about 6s. premium over these rates. **WOOD**.—Hankow in barrels is 83s. per cwt. for July-August shipment.

LUBRICATING, MINERAL AND BURNING OILS, ETC.—There is little change to report. Business is still generally very quiet, but prices are unchanged. **BENZOL**.—British makers' list prices unchanged; supplies still scarce at works and prices nominal: crude 65s., 1s. 4d. to 1s. 5d.; standard motor, 2s. to 2s. 3d.; pure, 2s. 3d. to 2s. 6d. per gallon, ex works; in tank wagons. **FUEL OIL** is steady but quiet: 950 gravity, £3 17s. 6d.; 890 gravity, £4 7s. 6d. per ton, ex tank. **PARAFFIN WAX** and **SCALE** are fairly steady, but not active: wax, 3½d. to 4½d. per lb., according to melting point, in bags. Scale is offered at about £25 15s. per ton, c.i.f. U.K. port. **PARAFFIN OILS** continue firm: American standard white, 1s. 1d.; water-white, 1s. 2d. per gallon, barrels free; Russian prime white kerosene, 6½d. to 7d., ex tank; 7½d. buyer's barrels, filled free, and 11d. barrels free, ex wharf, London. **WHITE OILS** are quiet, with quoted prices unchanged: Special No. 1, £27; No. 1, £25 10s.; No. 2, £23; No. 3 half-white, £22; No. 4 half-white, £15 per ten, drums and barrels free, ex wharf. **SOLVENT NAPHTHAS** continues very firm, with very little material available: 90 to 160, 1s. 10d. to 2s. heavy 90 to 190, 1s. 4d. to 1s. 5d. per gallon, naked, at works. **PETROLEUM JELLIES** remains slack and unchanged: white to

snow-white, £35 to £58; amber and yellow, £17 17s. 6d. to £22; red vet, about £15 7s. 6d.; dark stiff green, £13 per ton, barrels free, ex wharf. LUBRICATING OILS.—Shipment conditions are somewhat firmer, and the spot market is steadier. Business, however, is not good. Spot: pales, £10 10s. to £23 5s.; reds, £12 12s. 6d. to £23 5s.; dark cylinders, £13 to £34; filtered cylinders, £20 5s. to £33 15s. per ton, less 2½ per cent., ex wharf, London. SOLUBLE OILS and CUTTING COMPOUNDS, £20 to £29 per ton, net. No. 1 RUSSIAN OIL is offered at £15 5s. per ton, less 2½ per cent., in barrels, ex wharf.

Iraq Liquorice Root Export to U.S.A.

ACCORDING to the official returns issued by the U.S. Department of Commerce, in the month of April 6,506,210 lb. of liquorice root, valued at \$121,923, was imported from Iraq into the United States.

Bulgarian Rose Oil Exports

ACCORDING to the official statistics, exports of rose oil from Bulgaria during the month of May totalled 92 kilos, valued at 5,161,929 levas, consigned to the following countries:—Great Britain, 110 grams; Austria, 5 grams; Germany, 26 kilos; United States, 43 kilos; France, 15 kilos; Netherlands, 3 kilos; Switzerland, 5 kilos. During the first five months of the present year Bulgaria exported 714 kilos. of rose oil, valued at 41,251,933 levas.

Italian Mercury Exports

IN the following table the exports of mercury from Italy during the past three years are given:—

	1923	1924	1925
	kilos	kilos	kilos
Austria	15,200	26,600	29,800
France	107,600	139,900	96,100
Germany	139,400	191,100	300,300
Great Britain	310,400	339,400	208,600
Japan	214,700	333,200	151,100
Hong Kong	262,700	111,200	129,700
Brit. India and Ceylon	80,800	52,900	96,000
United States	208,700	288,000	355,700
Other countries	66,100	178,000	140,100
Total	1,405,600	1,660,300	1,507,400

Java Cinchona and Coca Exports

IN the table below are given the exports of cinchona and coca from Java during the first five months of 1925 and 1925:—

	Cinchona		Coca	
	Jan.-May, 1925	Jan.-May, 1926	Jan.-May, 1925	Jan.-May, 1926
	kilos	kilos	kilos	kilos
France	—	16,537	—	18,819
Germany	—	—	10,122	17,709
Great Britain	317,000	292,970	—	—
Japan	151,000	285,417	136,022	126,621
Netherlands	1,260,000	1,781,068	422,249	395,219
Other countries	5,000	—	—	—
Total	1,733,000	2,375,992	568,393	558,368

During the first months of 1925 exports of quinine from Java totalled 62,688 kilos, against 79,297 kilos during the same period of 1925.

Autumn Trade Forecast

IN its trade forecast for the third quarter of 1926 the Federation of British Industries states that the present position of international trade is extremely obscure, due to the fortuitous concurrence of a series of exceptional events—first, the coal stoppage in this country; secondly, the French monetary crisis; and lastly, the general fall in world gold prices which has been in progress since the close of last year. These three events have reacted on one another, with the result that it is difficult to know which has been the predominating influence in the various countries affected. So far as this country is concerned there can be no doubt that the coal stoppage has been the most important feature, and if it is not unduly optimistic to look for a settlement during the coming quarter, there should be a sharp recovery of trade in the autumn. The outstanding event on the Continent has probably been the French financial crisis, which has not only precipitated the fall of the Belgian franc, but has unsettled the exchanges and prices of other European countries, notably Italy. The situation is still highly critical. It is no longer possible for the French

financial authorities to temporise, and unless effective steps are taken to stabilise the franc during the present quarter, nothing can prevent a collapse of the French exchange in the autumn and the consequent disorganisation of European trade which this must entail. The fall in gold prices which has been proceeding all over the world has undoubtedly both reacted on and been influenced by the above-mentioned events in Europe. It seems probable that if the European situation were normal American prices would by now have reached a state of stability. As it is, it is difficult to be sure whether the period of mild recession which set in earlier in the year is at an end or not. The controlling influence in American business conditions continues to be the policy of the Federal Reserve Board.

Key Industry Duties

PART I of the Safeguarding of Industries Act, 1921, expires at midnight on August 18, and the import duties imposed on over 5,000 "key" chemical products will then be enforced for a further ten years under the renewal Section in the Finance Act which has just received the Royal assent. The change-over brings with it various alterations which are bound to have an effect on the market here. It is well known that since the Board of Trade compiled and issued the original List of Articles chargeable with duty in October 1921, a number of new products have been introduced and put on the market. Although these products came under the schedule of the 1921 Act they have been immune from duty upon importation because they were not "listed." A few other products that should have been listed as liable to the duty were inadvertently omitted from the List, and have therefore been free of import duty. It is possible that the Board of Trade will issue a supplementary List which will include these products and they will become liable to the duty on and from the date of issue of the List. It is believed that various compound products of a proprietary character will also be added to the List. Under Section 10 clause 5 of the Finance Act provision is made for consumers to make application to the Treasury for Orders exempting from liability to duty any listed product which "is not made in any part of H.M. Dominions in quantities which are substantial, having regard to the consumption of that article for the time being in the United Kingdom, and that there is no reasonable probability that the article will within a reasonable period be made in H.M. Dominions in such substantial quantities." The decision as to whether a product is or is not made in the Empire in substantial quantities or whether it is likely to be made in the future rests with the Board of Trade, and it is understood they will adopt the following procedure. Applications for exemption orders addressed to H.M. Treasury will be passed on by that department to the Board of Trade, who will issue a notice that an application for exemption for a specified product or products is being considered, and interested parties who wish to make representations on the subject will be invited to do so by a given date. We understand that a number of applications have already been lodged with H.M. Treasury and in some cases the question of sufficient supplies to meet normal requirements will be hotly contested by both parties—the applicant and the home maker.

Exchange Rates on London

The following is a list of Continental and other exchange rates against the pound sterling on London prevailing at 4 p.m. on Wednesday:—

Place	Method of Quoting	Par of Exchange	August 11	August 18
Amsterdam ..	Fl. to £	12.107	12.10½—12.11½	12.11½—12.11½
Berlin ..	M. to £	20.43	20.41½—20.42½	20.41—20.41½
Brussels ..	Fr. to £	25.22½	177½—178½	175½—176
Calcutta ..	Per rup.	24d.	17½d.—18d.	18½d.—18½d.
Constantinople ..	Pst. to £	110	86½—87½	83½—89
Copenhagen ..	Kr. to £	18.159	18.28—18.31	18.27—18.29
Greece ..	Dr. to £	25.22½	436—439	440—443
Hong Kong ..	T.t. \$	—	26½—26½d.	26½d.—26½d.
Italy ..	Lire to £	25.22½	146½—147½	147½—147½
Kobe ..	Yen	24.58d.	23½d.—23½d.	23½d.—23½d.
Lisbon ..	Escu	53½d.	2½d.—2½d.	2½d.—2½d.
Madrid ..	Pes. to £	25.22½	31.86—31.89	31.35—31.38
Montreal ..	\$ to £	4.86½	4.85½—4.85½	4.85½—4.85½
New York ..	\$ to £	4.86½	4.86½—4.86½	4.86½—4.86½
Oslo ..	Kr. to £	18.159	22.10—22.13	22.14—22.17
Paris ..	Fr. to £	25.22½	175½—176	169½—169½
Singapore ..	Per dol.	—	27½d.—27½d.	27½d.—27½d.
Sofia ..	Lev. to £	25.22½	22.10—22.13	66½—680
Stockholm ..	Kr. to £	18.159	18.15—18.16	18.14½—18.15½
Switzerland ..	Fr. to £	25.22½	25.13½—25.14½	25.15—25.16
Vienna ..	Sh. to £	24.02	34.39—34.42	34.40—34.43
Warsaw ..	Zloty to £	25.22½	43½—46	44—46



Letters for this section should be written on one side of the paper only. Correspondents may adopt an assumed name for purposes of publication, but must in all cases furnish their real name and address to the Editor.

Meeting Competition

SIR,—It is quite a treat to read such letters as those of "Justin Lincoln" on "Chemists and Multiple Shops" and "Coconucis" on "Meeting Competition"; they both strike an optimistic note, and prove that there are still "live" men among us who refuse to lie down to opposition in the shape of modern methods and keen competition. We all run up against "snags" some time in our business careers—a poor position, inconvenient premises, lack of capital, keen competitors, and a hundred and one other obstacles in our struggle for success; but the methods of the optimist will meet and vanquish all. Lack of knowledge is serious, but lack of initiative is far worse; for without it no man can be a real success in any walk of life. Personality, initiative, ability and a real desire to get on are forces which will overcome nearly any difficulty.

Yours faithfully,

LIVE WIRE (9/8).

Managers' Salaries

SIR,—The system adopted by "A Non-Grouser" (*C. & D.*, July 24, p. 189) for the payment of his manager may serve from the point of view of inducing the manager to work for an increased turnover, but in the case of a small branch he is going to have a rather thin time at first. Let us presume that a branch is taking £30 a week (£1,500 a year), which is a fair average for many branches; then the manager's 10 per cent. will net him £3 a week—a big drop from the £7 weekly which was mentioned at the commencement of this discussion. To draw a salary of £5 per week he would have to put on another £1,000 a year, making the turnover £2,500 yearly, a big proposition in these days; and if he could succeed in working up this increase there next arises the question whether he could cope with the volume of business single-handed. As a manager in pre-war days I found that £25 a week was a good handful, and I had no time to sit down; I had, however, a larger amount of private dispensing than usual for a branch. Since then I have not had occasion to work alone, so I should like to know what amount "A Non-Grouser" considers one man should be able to handle absolutely by himself, and not with an apprentice or girl to do the odd jobs for him. An arrangement for the payment of a share or percentage of the profits is quite a good one in many cases, as the manager feels that he is deriving some direct benefit from the extra work he may put in; but it would be wise to have a standard basic wage with the extra, whatever it may be, as an added emolument for the results achieved, and before any such arrangement is accepted it should be drawn up in the form of a proper agreement.

Faithfully yours,

EXPERIENTIA (26/7).

Fulfilling One's Obligations

SIR,—"Xrayser III" advises practising pharmacists to consider whether they invariably fulfil their obligations with regard to the sale of poisons (*C. & D.*, August 14, p. 309). As a practising pharmacist of varied experience extending over many years both as an employer and employee, I should say that the majority of them do so in a very careful and painstaking manner. In very small towns it is most likely that all his customers are personally known to the pharmacist, and in all probability he knows also their requirements in the way of poisons and for what purpose they are going to use them, so that he has little or no difficulty in deciding whether he should effect a sale or not; but in a large town or suburban district (especially in a busy cash trade) one seldom knows who one's customers are or where they live. It is generally impossible for the pharmacist to say that he knows them

and equally impossible for them to bring a witness known to both sides, therefore the chemist is only acting legally in refusing a sale. The same reasoning applies to dispensing Dangerous Drugs Act scripts; unless the doctor practises locally and the chemist knows his writing, or unless he is easily consulted on the telephone or otherwise, the chemist cannot say that the script is in order, and therefore (by the Regulations) he cannot dispense it. The result of the continual tinkering with the poison-laws has been to make the retail chemist a criminal in intent before he has committed the crime; and therefore, to avoid any semblance of guilt, he is compelled to go to the other extreme and obey the letter of the law so as to leave no loophole if possible for any official to censure him.—Faithfully yours, SUPERSEDE (16/8).

Subscribers' Symposium

For interchange of opinion among "C. & D." readers and brief notes on business and practical topics

Appreciations

The wonderful array of facts which you have collected and included in the article entitled "The Title of Chemist and Druggist" in the Summer Issue should settle once and for all any question as to our rights to this title. Names are carried down by common usage from generation to generation with little or no alteration, the words in use in some cases being traced back for hundreds of years; and in this use of names and titles custom is seldom far wrong. You have now proved this to be the case with regard to our title, and I hope we have heard the last of the suggestions that we should relinquish a name by which we are known in every home in the country.—*C. H. C.* (12/7).

May I congratulate you on the magnificent Special Issue (July 10), in my humble opinion the finest you have ever produced? It specially appealed to me as a botanist who has visited many of the botanical gardens dealt with therein. Last September I visited those of Copenhagen and Helsingfors in Finland. Here I was most interested in a bed devoted to about 120 varieties (all duly labelled) of *Taraxacum officinale*, also in the magnificent specimens of *Nicotiana tabacum* and *N. rustica*. Close by was a plant quite new to me, *Kitabelia latifolia*, about 5 ft. or 6 ft. high, very like the well-known African plant *Sparmannia africana*. Although my visit was late in the year I was surprised to see many flowers in bloom so far North.—*T. W. H.* (2/8).

Ideal Flooring Wanted

I wonder whether any of your numerous readers have solved the problem of maintaining a factory floor in a reasonably sanitary condition? Anything in the nature of a concrete flooring is impossibly cold in the winter months. On the other hand, the customary floor boards are difficult to maintain in a cleanly condition. I am under the impression that in the Army, in some quarters, it was customary to "dry-clean" the floorboards by scrubbing them with sand. This would seem almost preferable to trying to clean them wet. We get numerous visits from factory inspectors, compelling us to whitewash walls and put unnecessary "bird-cages" round tablet machines, and instructions of that kind; but the question of a sanitary flooring seems to me of greater importance, and is never approached so far as I am aware.—*Nemo* (19/7).

Legal Queries

F. E. (14/8).—No date has been fixed, as far as we are aware.

Asthma (3/8).—Stramonium and lobelia both contain a "poisonous alkaloid," consequently they come within Part II of the Poisons Schedule, and cannot legally be sold retail by unqualified persons.

F. G. H. (16/8).—The sick-room spirit the formula of which appears in *The Chemist and Druggist Diary*, 1926, can be sold as a known, admitted and approved remedy by registered chemists and druggists in business, subject to the requisite reference being given on the label.

R. W. T. (29/7) wishes to change his surname by adding to it his mother's maiden name. How is the change effected and what does it cost? Do we recommend that the existing initials should be retained? Will new certificates be required? [Although no legal formalities are essential in order to make a change of name effective it is usual to preserve evidence of the change by executing a deed poll and afterwards enrolling it at the Central Office of the High Court. With the deed must be lodged a birth certificate and a declaration by a householder identifying the person who is changing his name. As a rule, notice of the change of name is advertised in "The London Gazette," and sometimes in a local paper also. Apart from the cost of having the deed poll prepared, the actual expense of a change of name is only about £1 for stamp duties and enrolment fee. As a rule, when a surname is changed the existing Christian names are retained, but "R. W. T." must decide for himself whether or not to use his present initials. The Pharmaceutical Society will generally issue fresh certificates in case of changes of name, and will correct the Register on receiving evidence that satisfies them.]

Ajax (3/8), while away from home on holiday arranged to buy a house and shop, and signed, across a 6d. postage stamp, an agreement written upon a leaf torn from an exercise book. The agreement provides as follows: "The vendor agreeing to sell and the purchaser agreeing to purchase for the sum of £1,200 the freehold house and shop (description given). Ten per cent., i.e., £120 deposit to be paid by June 24; £700 to remain on mortgage; purchase to be completed on September 29 by payment of balance £380." Having looked into his financial position after his return home he finds that it is impossible to complete the purchase. He has not paid the deposit, but the vendor refuses to release him. Do we think that the agreement is enforceable? [Assuming that the agreement gives the names of the vendor and the purchaser we consider that the contract is binding upon "Ajax," and that the vendor can take legal proceedings for its specific performance, that is to say, can compel "Ajax" to complete the purchase or pay damages for failing to do so. We strongly advise "Ajax" to consult a solicitor without delay and submit the contract for his opinion and advice.]

Miscellaneous Inquiries

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

J. E. & S. (5/7).—LIQUID TO KILL WHITE FLY IN GREEN-HOUSES.—This consists of tetrachlorethane only. It is vaporised in greenhouses for the destruction of white fly.

L. A. K. (12/7).—POWDER CURD IN CALVES.—This powder, used in the treatment of curd or diarrhoea in calves, is a nearly white powder containing cream of tartar (92 per cent.) and barley meal, with a little ginger, sufficient to impart a warm flavour.

J. C. (16/7).—FISH-FRYING POWDER.—This powder consists of sodium bicarbonate (94 per cent.) and corn flour. Other samples we have examined previously have contained in addition an acid ingredient and resembled baking powder in composition.

P. L. (19/7).—We cannot undertake to supply imitations of the proprietary articles.

F. M. T. (19/7).—HORSE STIMULANT POWDER.—This powder consists of 6 grains of caffeine (pure). This is half of a powder that is given as a stimulant to horses before engaging in a race. One powder is administered each day for three days before the contest.

A. G. (20/7).—The charge for dispensing the forty-eight powders ordered in the prescription you send is 5s. 3d., on the *C. & D.* Costing System. In regard to the suggested concession to a medical man, this would not exceed a discount of 33½ per cent.

Drayol (20/7).—The school certificate of the Oxford and Cambridge Schools examination is accepted for registration as a student of the Pharmaceutical Society. Articles

of pupillage must now be entered into by the apprentice. Assuming there is no premium, about which nothing is said, an apprentice, being taught the business, costs more in time in the first year than he can earn. It is, however, common nowadays to pay nominal wages beginning at 10s. a week. The pupillage must cover 4,000 hours, not less than two years.

E. M. W. (20/7).—(1) VANISHING CREAM.—See *C. & D.* Price List Formulary, p. 49, or *C. & D.* Special Issues (June 27), 1925, p. 925. (2) The book on perfumes to which you refer is Poucher's "Perfumes, Cosmetics and Soaps," Vol. II, published by Chapman & Hall, Ltd., at 21s.

W. H. L. (20/7).—Copper sulphate one in a million used for destroying algae in ponds is stated not to be destructive of fish, so that it seems that you could safely employ that strength for the pond containing goldfish.

Aspirin (21/7).—PERSPIRING HANDS.—The inconvenience of perspiring hands is temporarily overcome by soaking the hands in alum solution (1 in 20) or formalin solution (1 of formalin in 20), but the effect is not lasting as the constitutional cause is unaffected. No method of controlling this is known.

P. C. (23/7).—PRESERVATIVES permitted to be used in foods and beverages in certain proportions are sulphur dioxides (including sulphites) and benzoic acid (including benzoates). Details of the proportions permitted were given in the *C. & D.*, August 29, 1925, p. 329.

A. B. R. (23/7).—PERRIER WATER.—We are unable to refer you to an analysis of Perrier water. Martindale's "Extra Pharmacopoeia," Vol. II, gives a reference to the "Medical Press," June 22, 1904, to the effect that the water contains a small proportion of alkaline carbonates.

A. L. M. (23/7).—The sample you send is commercial precipitated manganese dioxide. Black oxide of manganese has many uses, as a chlorine producer, paint basis and dryer, depolariser in the Leclanché battery, and in the preparation of a black enamel for pottery. As you gave us no particulars of the sample we are unable to help you further.

J. W. D. (24/7).—There is no feasible method for unsticking slip labels which have from exposure to damp become a solid block. It has been recommended to place the labels in a damp cellar so that they can reabsorb moisture, or expose them in an atmosphere of steam for a time to loosen the gum, but the time taken is worth more than new labels.

F. L. D. (24/7).—There is nothing less harmful than hydrogen peroxide solution for lightening the hair.

H. W. N. (24/7).—The charge for dispensing the prescription you send, priced on the *C. & D.* Costing System, is 7s. 3d. It is clear that the chemists who dispensed this for 1s. 3d. and 2s. are not aware of the costly nature of the first item.

Retrospect of Fifty Years Ago

Reprinted from
"The Chemist and Druggist," August 15, 1876
Pharmacalia

Much may be said in favour of the desirableness of not becoming famous; at all events there is some advantage and more consolation in keeping the even tenor of one's way.

The unambitious pharmacist may safely wend his course across the *via media* with no other fears than those caused by a doubling customer on the one hand, and a sensation analyst on the other. On him no deputation waits with a testimonial, and no associated sympathetic guineas vote him an address.

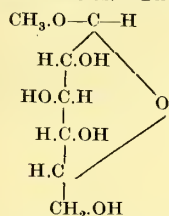
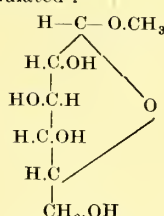
Let either distinction overtake him, and henceforth he is a doomed man. Society has marked him for her own. From that moment the mildest public dinner means a speech from the "talented and distinguished"; and even when tempted to take refuge amongst the scientific apparatus of a conversation, he is pointed out to the fair pharmacienes as Blank—"You recollect Blank, my love, who wrote the prize essay on Quantivalence."



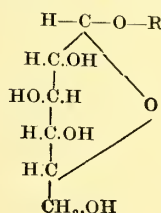
[Commenced C. & D., July 5, 1924]

Glauber's Salt is a popular synonym for crystallised sodium sulphate ($\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$), so named after its discoverer, John Rudolph Glauber, who was born at Carlstadt in 1603. Glauber was twenty-one when he evaporated the "Salpeterwasser" water from a spring near Neustadt and obtained crystals which might be confused with saltpetre. Glauber satisfied himself that it was not the latter, and he produced the same substance, which he named "sal mirabile," from the residue in a retort after distilling marine salt and vitriol. Glauber was not aware that he had discovered the sodium sulphate which in domestic medicine still bears his name, but considered that it was the "sal enixon" of Paracelsus (which is potassium sulphate).

Glucosides is a generic name applied originally to plant substances which on hydrolysis yield a sugar (usually glucose, hence the term) and another hydroxylated compound, not a carbohydrate, but an alcohol, phenol, acid, etc. Plant glucosides are thus natural esters of glucose or other sugars which ordinarily can be split into their components either by suitable enzymes (see below) or by hydrolysis with dilute acid. Hexose phosphates of the blood (blood sugar), muscles, and cartilage, represent animal glucosides which occur also in plants, notably yeast (see below). Synthetic glucosides have been prepared identical with natural products, and the simplest methyl-glucosides serve to illustrate the stereo-chemistry of both glucosides and glucose. Two methyl-glucosides, designated α and β , are known, which have different behaviour towards enzyme and acid hydrolysis and possess different optical rotations, melting points and solubilities. These can be formulated:—

 α -Methyl-glucoside.Melts at 165°C . $[\alpha]_D +157^\circ$. β -Methyl-glucoside.Melts at 104°C . $[\alpha]_D -33^\circ$.

The above formulas are stereoisomeric or mirror images of one another. They differ only in the orientation of their methyl group, the selection of α to designate the dextro-rotatory glucoside being quite arbitrary. The δ or amylenic ring is shown in the glucose residue because W. N. Haworth has recently brought forward experimental evidence in support of this, whereas the usual γ or butylene oxide formulation was a pure assumption. Many natural glucosides are β -glucosides, and all glucosides split by emulsin are regarded as β -glucosides. Emulsin is a mixture of enzymes. Since α -glucose esters have not been found in plants, the majority of the glucosides which are derivatives of *D*-glucose can be represented:—



where R stands for aesculetin, etc., in the last column of Table A, p. 386.

Glucoside and the enzyme which hydrolyses it are usually present in the same plant but in different cells. Most glucosides are crystalline neutral compounds (but a few are acidic and one or two others are basic), soluble in water and alcohol. They are frequently optically active and usually levogyrate (see Table A, p. 386), even though derived from a dextro-rotatory carbohydrate. The natural glucosides derived from *D*-glucose (see Table A, p. 386) are of small medicinal importance, a notable exception being salicin.

Glucosides are derived also from various sugars other than dextrose, such as arabinose, cymarose, digitoxose, fructose, galactose, mannose and rhamnose. These are grouped below according to their medicinal or natural characteristics.

Digitalis Group.—This class of glucosides, which are medicinally important owing to their action on the muscular tissue of the heart, are given in Table B, p. 386.

The medicinal and commercial aspects of the glucosides of the digitalis group are somewhat confusing. "German digitalin" is mainly digitonin with some true digitalin. "Nativelle's crystallised digitalin" consists chiefly of digitoxin. Digitaline crystallisée (Fr. Codex) corresponds to crystalline digitoxin, and amorphous chloroform soluble "digitalinum gallicum" would also appear to consist of digitoxin. Digitonin precipitates cholesterol from its alcoholic solution, the formation of an additive compound containing one molecule each of cholesterol and digitonin being a distinctive test for both these substances (but gintonin and saponins generally also form additive cholesterol derivatives). The chemistry of this group of glucosides is exceedingly difficult. Thus strophanthin of commerce has only recently been shown to be a mixture of chloroform soluble cymaridin with water-soluble K-strophanthin- β (m.p. $150^\circ\text{--}151^\circ$). Antiarin from *Antiaris toxicaria* is an arrow poison containing two glucosides (α -antiarin $\text{C}_{27}\text{H}_{40}\text{O}_{16} \cdot 4\text{H}_2\text{O}$, m.p. $220^\circ\text{--}225^\circ$; and β -antiarin $\text{C}_{27}\text{H}_{38}\text{O}_{16} \cdot 3\text{H}_2\text{O}$, m.p. $206^\circ\text{--}207^\circ$), with toxic action resembling strophanthin.

Emodin Glucosides are constituents of aloes, buckthorn berries, cascara sagrada, rhubarb, and senna, and it has been suggested that their purgative action is due to glucosidic derivatives of emodin and aloe-emodin (both trihydroxymethylanthraquinones). However, it is almost certain that the active purgative of senna is still unknown, and that the action of rhubarb is due to non-glucosidic resins. The principal emodin glucosides are given in Table C, p. 386.

Phytosterolins are glucosides which were formerly confused with true phytosterols:—

Glucoside	Source	Melting point $^\circ \text{C}$.
Bryanol	<i>Bryonia dioica</i>	$210^\circ\text{--}212^\circ$
Citrullol	<i>Citrullus colocynthis</i>	$285^\circ\text{--}290^\circ$
Cluytanol	<i>Taraxacum officinale</i>	297°
Ipuranol	<i>Ipomoea purpurea</i>	$285^\circ\text{--}290^\circ$

Rhamnose Glucosides are baptisin, convallamarin, datiscin, frangulin, fustin, kamferitrin, quercitrin, and xanthorhamirin. Hesperidin and naringin contain both glucose and rhamnose. All these are of little interest therapeutically except convallamarin, which has a digitalic action.

Mixed Glucosides of medicinal interest are: Apitin m.p. 228° (glucose + apiose + apigenin); convolvulin, m.p. 150° (dextrose + rhodose + convolvulinic acid); gentiin, m.p. 274° (dextrose + xylose + gentienin); quinovin (quinovose + quinoic acid); rutin, m.p. 184° (glucose + rhamnose + quercetin); vicianin, m.p. 160° (glucose + arabinose + *D*-mandelonitrile).

Saponin Glucosides froth strongly with water and produce oil-in-water emulsions and aid in suspending resinous precipitates (being used in pharmacy usually in the form of tr. quillaie). Saponins irritate the mucous membranes, being bitter and sternutatory. Sapotoxin is a term used for the more poisonous saponins. The chief saponins are tabulated in Table D, p. 386.

The C.&D. Commercial Compendium

Natural Glucosides derived from d-Glucose

A	Glucosides derived from d-Glucose	Principal plant source	Chemical formula	Melting Point °C.	Optical Rotation [α] _D	Yields also on hydrolysis Glucose +
*Aesculin	<i>Aesculus hippocastanum</i> ..	$C_{15}H_{16}O_9$	205°	—	Aesculetin (dihydroxycoumarin)
*Amygdalin	<i>Prunus amygdalus</i> var. <i>Amara</i>	$C_{20}H_{27}O_{11}N$	200°	— 38.3°	(1) Prunasin; (2) d-mandelonitrile; (3) benzaldehyde and hydrocyanic acid
*Androsin	<i>Apocynum androsaemifolium</i>	$C_{15}H_{20}O_8 \cdot 2H_2O$	218–200°	—	Acetovanillone
*Arbutin	<i>Arctostaphylos Uva-ursi</i> ..	$C_{12}H_{16}O_7 \cdot H_2O$	142° (and 194°)	— 63.5°	Hydroquinone
*Methyl-arbutin	<i>Arctostaphylos Uva-ursi</i> ..	$C_{13}H_{18}O_7 \cdot H_2O$	175°	— 64°	Quinol methyl ether
Aralin	<i>Aralia japonica</i> ..	—	260°	—	Aralidin
*Aucubin	<i>Aucuba japonica</i> ..	$C_{13}H_{19}O_8 \cdot H_2O$	181°	— 174°	Aucubogenin
*Coniferin	<i>Larix decidua</i> ..	$C_{16}H_{22}O_8 \cdot 2H_2O$	185°	— 67°	Coniferyl alcohol
*Daphnin	<i>Daphne mezereum</i> ..	$C_{15}H_{16}O_9 \cdot 2H_2O$	200°	—	Daphnetin
*Dhurrin	<i>Sorghum vulgare</i> ..	$C_{11}H_{17}O_7N$	—	—	p-hydroxybenzaldehyde and hydrocyanic acid
Fraxin	<i>Fraxinus excelsior</i> ..	$C_{16}H_{18}O_{10}$	320°	—	Fraxetin (trihydroxycoumarin)
Gaultherin	<i>Gaultheria procumbens</i> ..	$C_{11}H_{18}O_8 \cdot H_2O$	decomp. at 100°	—	Methyl salicylate
*Gentiopierin	<i>Gentiana lutea</i> ..	$C_{16}H_{20}O_9 \cdot \frac{3}{2}H_2O$	120°–125°	— 198°	Gentioenin
Glucosehirolin	<i>Cheiranthus cheiri</i> ..	$C_{11}H_{20}O_{11}NS_3K \cdot H_2O$	158°–160°	— 21°	Cheirolin
Glucatropeolin	<i>Tropaeolum majus</i> ..	$C_{13}H_{18}O_9NS_2K$	—	—	Benzyl-iso-thiocyanate and potassium acid sulphate
Gossypitrin	<i>Gossypium herbaceum</i> ..	$C_{21}H_{20}O_{13}$	200°–202°	—	Gossypetin
*Incarnatrin	<i>Trifolium incarnatum</i> ..	$C_{21}H_{20}O_{12}$	242°	—	Quercetin
*Indican	<i>Isatis tinctoria</i> ..	$C_{11}H_{17}O_6N \cdot 3H_2O$	100°–102°	—	Indoxyl
Iridin	<i>Iris florentina</i> ..	$C_{24}H_{26}O_{13}$	208°	—	Iridenin
Kaempferin	<i>Cassia acutifolia</i> ..	$C_{27}H_{26}O_{16} \cdot 6H_2O$	185°–195°	—	Kaempferol
Linamarin	<i>Linum usitatissimum</i> ..	$C_{10}H_{17}O_6N$	141°	— 26°	Acetonecyanhydrin
Lotusin	<i>Lotus arabicus</i> ..	$C_{28}H_{34}O_{16}N$	—	—	Lotoflavin and Hydrocyanic acid
Phloridzin	<i>Prunus</i> sp. ..	$C_{21}H_{24}O_{10} \cdot 2H_2O$	108° and 170°	— 50°	Phloretin
Populin	<i>Populus</i> sp. ..	$C_{20}H_{22}O_8$	—	—	Saligenin and benzoic acid
Phaseolin	(See Linamarin)	—	—	—	—
*Prulaurasin	<i>Prunus laurocerasus</i> ..	$C_{11}H_{17}O_6N$	122°	— 52.75°	Benzaldehyde and hydrocyanic acid
*Prunasin	<i>Prunus serotina</i> ..	$C_{11}H_{17}O_6N$	147°	— 26°	(1) d-mandelonitrile; (2) benzaldehyde and hydrocyanic acid
Quercimeritrin	<i>Quercus</i> sp. ..	$C_{21}H_{20}O_{11} \cdot 2H_2O$	183°–185°	— 140.9°	Quercetin
Iso Quercitrin	<i>Gossypium herbaceum</i> ..	$C_{21}H_{20}O_{12}$	217°–219°	—	Quercetin
Ruberythrinic acid	<i>Rubia tinctorum</i> ..	$C_{26}H_{28}O_{11}$	258°	—	Alizarin
Rubiadin	<i>Rubia tinctorum</i> ..	$C_{21}H_{20}O_9$	270°	—	Methyl-dihydroxy-anttraquinone
*Salicin	<i>Salix fragilis</i> ..	$C_{13}H_{18}O_7$	201°	— 65°	Saligenin (o-hydroxy benzyl alcohol)
Salinigrin	<i>Salix discolor</i> ..	$C_{13}H_{16}O_7$	195°	— 87.3°	m-hydroxybenzaldehyde
*Sambuciginin	<i>Sambucus nigra</i> ..	$C_{11}H_{17}O_6N$	151°	— 76°	l-mandelonitrile
Scopolin	<i>Scopolia carniolica</i> ..	$C_{22}H_{28}O_{11} \cdot 2H_2O$	218°	—	Scopoletin
Serotin	<i>Prunus serotina</i> ..	$C_{21}H_{20}O_{12} \cdot 3H_2O$	245°	—	Quercetin
Sinibabin	<i>Brassica alba</i> ..	$C_{30}H_{42}O_{15}NS_2 \cdot 5H_2O$	138°–140°	—	Acrylyl-iso-thiocyanate and sinapine acid sulphate
Sinigrin	<i>Brassica nigra</i> ..	$C_{10}H_{16}O_9NS_3K$	126°	—	Allyl-iso-thiocyanate and potassium acid sulphate
*Syringin	<i>Syringa vulgaris</i> ..	$C_{17}H_{24}O_9 \cdot H_2O$	191°	— 17°	Syringenin

* Hydrolysed by emulsin.

B	Digitalis Glucosides	Source	Formula	M.P.	Optical Rotation [α] _D	Composition
Cymar	<i>Apocynum cannabinum</i> ..	$C_{30}H_{44}O_9$	130–138°	+ 23°	Cymarose + cymarigenin
Digitalin	$C_{35}H_{56}O_{14}$ or $C_{36}H_{58}O_{14}$	217°	—	Glucose + digitalose + digitaligenin
Digitonin	$C_{51}H_{92}O_{28}$ or $C_{55}H_{92}O_{28}$	225°	— 50°	Glucose + galactose + digitogenin
Digitoxin	<i>Digitalis purpurea</i> ..	$C_{35}H_{54}O_{11}$	145°	—	Digitoxose (2 mols.) + digitoxigenin
Gitalin	$C_{28}H_{46}O_{10}$	150°–155°	—	Digitoxose + anhydrogitalin
Gitin	$C_{54}H_{92}O_{28}$	265°	—	Galactose (2 mols.) + digitogenin
Gitonin	$C_{49}H_{80}O_{23}$	272°	— 51°	Galactose (3 mols.) + pentose + gitonin
Strophanthin	<i>Strophanthus</i> sp. ..	$C_{40}H_{66}O_{19}$	170–172°	—	(1) Strophanthiose methyl ether + strophanthidin; (2) biase into rhamnose, mannose and methyl alcohol

C	Emodin Glucosides	Source	Formula	M.P.	Constituents
Aloin (Barbaloin)	<i>Aloes</i> sp. ..	$C_{20}H_{18}O_9$	—	d-Arabinose + aloë-emodin
Frangulin	<i>Rhamnus frangula</i> ..	$C_{21}H_{20}O_9$	228°	Rhamnose + emodin
Polygonin	<i>Polygonum cuspidatum</i> ..	$C_{21}H_{20}O_{10}$	220°	Glucose + emodin

D	Saponins	Source	Formula	M.P. °C.	Composition
Agrostemma sapotoxin	<i>Lychnis (agrostemma) githago</i> ..	$(C_{17}H_{26}O_{10})_2$	—	4 mols. sugar + sapogenin
Caulophyllosaponin	<i>Caulophyllum thalictroides</i> ..	$C_{66}H_{101}O_{17}$	250°–260°	2 mols. arabinose + caulophyllosapogenin
Caulosaponin	<i>Caulophyllum thalictroides</i> ..	$C_{54}H_{88}O_{17}$	250°–255°	2 mols. glucose + caulosapogenin
Digitosaponin	<i>Digitalis purpurea</i> ..	$C_{54}H_{92}O_{28}$	—	Pentose + digitosapogenin
Digitonin	<i>Digitalis purpurea</i> ..	$C_{54}H_{92}O_{28}$	225°	2 mols. glucose + 2 mols. galactose + digitogenin
Parillin	<i>Smilax ornata</i> ..	$C_{26}H_{44}O_{10}$	177°	2 mol. sugar + parigenin
Quillaic acid	<i>Quillaia saponaria</i> ..	$C_{19}H_{30}O_{10}$	—	—
Quillaia sapotoxin	<i>Quillaia saponaria</i> ..	$C_{17}H_{26}O_{10}$	—	—
Sarsasaponin	<i>Smilax ornata</i> ..	$C_{41}H_{76}O_{20} \cdot 7H_2O$	280°	3 mols. glucose + sarsapogenin
Saporubin	<i>Saponaria officinalis</i> ..	$(C_{18}H_{28}O_{16})_4$	—	Several sugars + sapogenins

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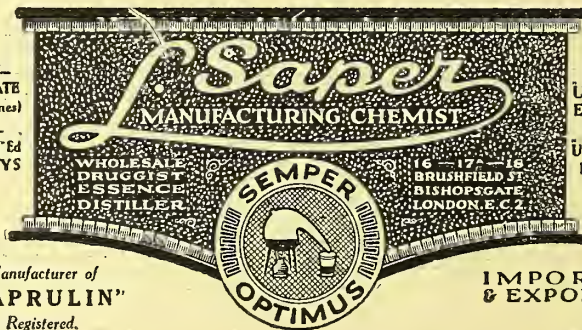
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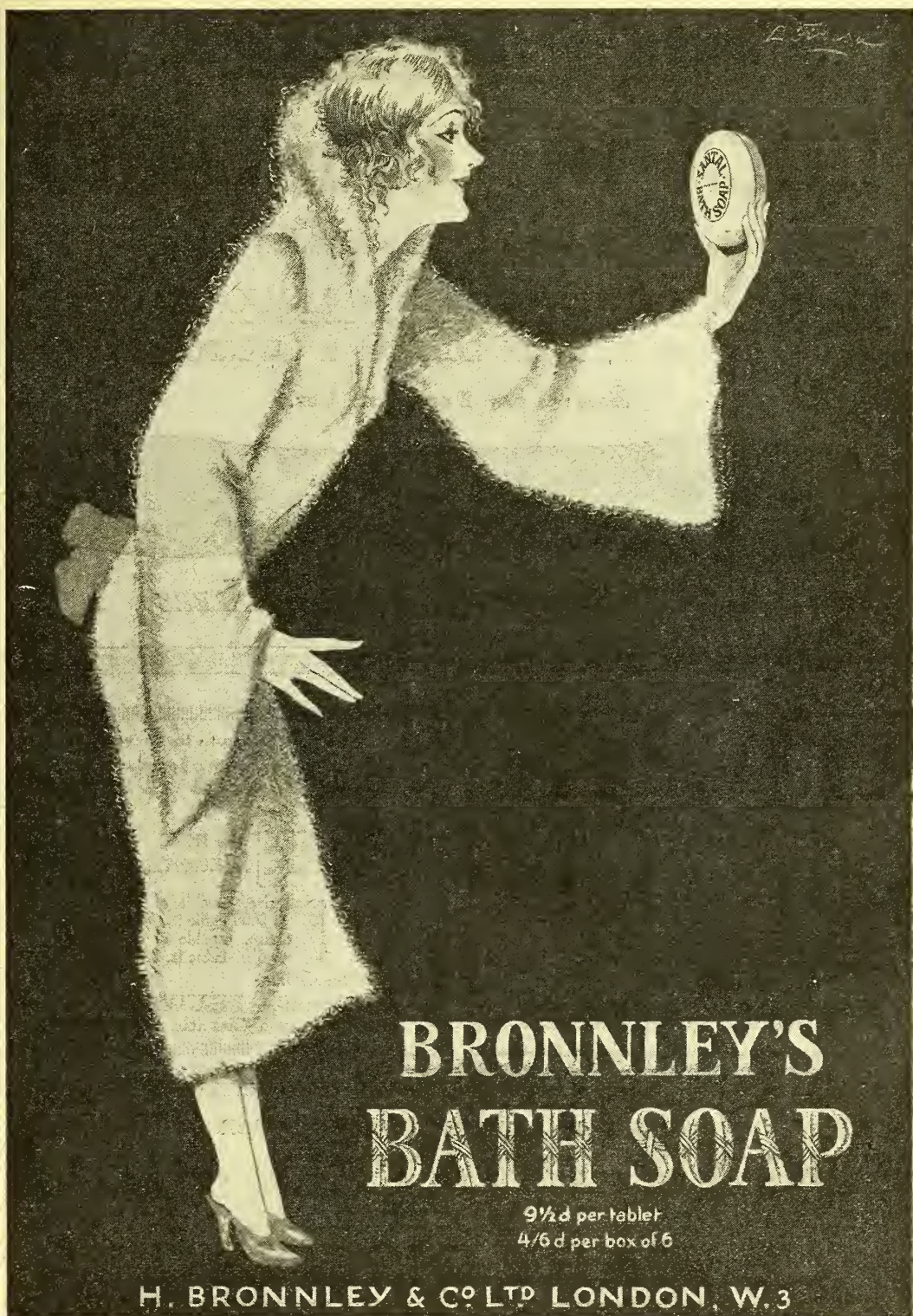
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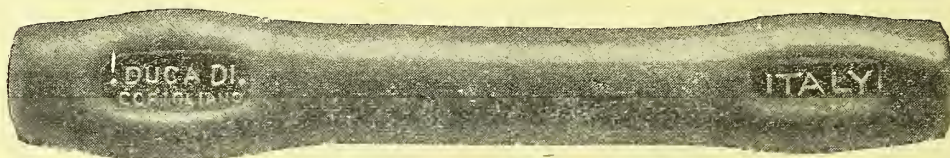
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THE CHEMIST AND DRUGGIST SUPPLEMENT

42 CANNON ST.
LONDON E.C.4

AUGUST 21, 1926

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the ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

GLAMORGAN.—General Retail Business, with Wine Licence, Rexall and Ucal Agencies; N.H.I. about 400 scripts per month; unopposed; population 4,000; new collieries and works nearly completed; turnover £1,200; low rental; spacious shop with living accommodation; price £450, or reasonable offer. 88/5, Office of this Paper.

LULL.—For Sale, Drug Store; good-class populous district; close to park; no opposition; splendid opening for qualified chemist; 6-roomed house, in good repair, recently painted and decorated, bath (hot and cold); property and fixtures, nearest £300; stock at valuation. Park Drug Store, Park Road, Lull, Yorks.

LIVERPOOL.—Retail Dispensary and Photographic; old-established; in good-class district; Kodak Agency; turnover £1,500; ample scope; opportunity for Optics; good house; lease given; corner position; price, including sound stock, £800; part could remain to approved purchaser; unquestionable reason for disposal. Write "Pharmacist," 122 Townsend Avenue, Clubmore, Liverpool.

LONDON.—Established December last, middle-class N.W. main road; now averages £29 per week (plus N.H.I., 100 per month); scope for considerable increase; should reach £60 or more; stock and fixtures worth approximately £500; good reason for disposal; price £1,200; living accommodation and garden; leasehold property (54 years at £8); can be purchased for further £1,000, or £350 cash and approximately £72 per annum for 14 years. 188/11, Office of this Paper.

MANCHESTER Suburb.—Genuine old-established, well fitted and stocked Business, with Photography; corner shop, in densely-populated district, with excellent living accommodation; electric light throughout; lease can be arranged; immediate, sound opportunity, with sure prospects; disposing and leaving town through ill-health; £825 for quick sale. 187/36, Office of this Paper.

PENRITH, CUMBERLAND.—For immediate Sale owing to the death of the owner, Mr. Thomas Edmondson, a very successful old-established (1726) Chemist and Druggist, Seedsman and Agriculturist Business, with large turnover; being owner of premises can give long lease; exceptional opportunity. Executor, T. Scott, Corn Market, Penrith.

SCARBOROUGH.—Small up-to-date Pharmacy, good business; with Kodak Agency, in best-class district, for Sale; sound reason for disposal. Will. N. Kennedy, 2 Cambridge Terrace, Scarborough.

SOUTH COAST (popular seaside town).—Genuine and progressive Business for disposal; no near opposition; comfortable house; low rent; long lease; present returns about £28 per week; illness sole reason for disposal; £850 (less than actual cost) for quick sale. 185/34, Office of this Paper.

STAFFORDSHIRE.—Excellent little Business, established 14 years; average turnover £1,500 yearly; splendid opportunity for young qualified man; lock-up Pharmacy; moderate rental; good opening for Panel; price £750 for stock, fittings and goodwill. 88/928, Office of this Paper.

STRATFORD, E.—Genuine bargain; £250 will purchase genuine Cash Business, returning under unqualified management £14 weekly; working-class neighbourhood; 15 years' lease, renewable, at cheap rental, 12s. 6d. weekly; good living accommodation; under qualified returns could be doubled; good reason for disposing; first cash offer secures a bargain. 185/11, Office of this Paper.

CANINE and Veterinary Medicine; Limited Company; valuable practice and mail-order clientele, stock, literature and formulas; controlling interest £500, or other arrangements can be made. 185/5, Office of this Paper.

EXCELLENT Business in North Wales (not seaside); highly recommended; comfortable house a few minutes from shop; both could be had on lease; knowledge of Welsh desirable; present owner retiring after 23 years. "Welsh," c/o Ayrton, Saunders & Co., Ltd., Liverpool.

EXCELLENT Offer.—Pharmacy, W. London; well fitted and completely stocked; doing over £30 per week at excellent profit; small overhead charges; long lease; easily run; steady turnover and safe proposition; owner is desirous of early transfer owing to pressure of other business; valued at £1,625; will accept £1,250 in cash if an early disposal. Apply 88/926, Office of this Paper.

OLD-ESTABLISHED Chemist Business, N.W. London; badly neglected; now managed by lady; well stocked and fitted; three rooms and scullery; taking £13 to £14; smart man could double in winter; £500; owing giving up business; only genuine buyers dealt with. Address 186/17, Office of this Paper.

RARE OPPORTUNITY.—For Sale, Chemist's Business; over £1,800 cash trade; £480 profits; accounts audited; in thickly-populated district; good seaport town; offering considerable and unusual scope; business and premises; comfortable living accommodation; pleasantly situated; to Let on lease, or business let as lock-up if preferred. For particulars apply 186/39, Office of this Paper.

BUSINESSES WANTED.

BIRMINGHAM suburb preferred; medium class for young M.P.S.; under £1,000; or manage, view purchase; pleasant house offered part exchange. 39 Bishopton Road, Smethwick.

BUSINESS wanted in London or Home Counties, with a turnover of about £2,000. Any information will be treated as strictly confidential; no agents. 188/7, Office of this Paper.

MESSRS. BERDOE & FISH are in immediate want of Businesses, and vendors will find it to their advantage to correspond with us, we having at the present time a large number of genuine cash buyers with from £700 to £4,000 at command, and ready to take over at once; private registers kept, and strict privacy assured. Valuation Offices: 41 Argyle Square, King's Cross, W.C.1.

PHARMACY or Drug Store required, London or suburbs or seaside near London, with living accommodation preferred; certified net profits £500 or over; prompt cash; genuine purchaser. 88/923, Office of this Paper.

SOUND established Country Chemist's Business required, capable of development, with living accommodation preferred; district, Yorkshire or near; must stand investigation. Particulars as to lease, or price of property if for disposal, in confidence and first letter, to Brown, 3 West Street, Scarborough.

THE British Drug Houses, Ltd., Graham Street, City Road, N.1, have a customer who is desirous of purchasing a good-class Chemist's Business, with living accommodation, requiring an investment of about £3,000; in or near London preferred, but not essential. Replies, treated in strict confidence, should be addressed to "X. Y. Z.," c/o The British Drug Houses, London, N.1.

FOR SALE.

ABOUT 150 gross new Glass Bottles, mostly Panels, cheap to clear; list on application. 88/922, Office of this Paper.

FOR Sale, Mixer and Emulsifier, Bennet Sons, No. 8, capacity 13 gallons, £15. Johnston & Adams, Dundee.

OERTLING Balances, one pair in glass case; excellent repair; cost £10; no reasonable offer refused. Can be seen at Thwaites & Co., 2 Crampton Street, S.E.17.

TWO Parex 72 x 36 Air/Water Beds with one pair bellows; used for three months and for air only; condition as new; one slightly soiled; rheumatic case; any reasonable offer for either or both accepted. Sadler, Chemist, Crawley, Sussex.

VELOX Dryer, hand driven, for Sale; delivered in May, 1926, and in new condition; best offer over £25, f.o.r. Jones, Chemist, 30 Mardol, Shrewsbury.

AGENCIES.

AGENTS, with sound connection amongst Chemists, Stores, Hairdressers, etc., required for the sale of Cologne, Lavender Water, Hairdressers' Sundries, etc.; generous commission only. Reply, stating ground covered and full particulars, to 88/924, Office of this Paper.

AN energetic young Pharmacist, 27 (Colonial Certificate), gentlemanly appearance, fluent Spanish, desires appointment with important Manufacturing Chemists as Representative for/or to open new branch in Spain or South America; experienced in secretarial work, office management and correspondent; good connoisseur; Spanish character. Write fully, strict confidence, 183/11, Office of this Paper.

DUTCHMAN, at present staying in London, has 15 years' experience in the Chemical and Pharmaceutical trade and possesses an extensive connection throughout Holland among Wholesalers, Chemists, Druggists, Hospitals and Exporters, desires to take up Agencies for well-known English manufacturers; first-class references. P.C.B. 36/14, Office of this Paper.

PREMISES TO LET.

BRIDGE STREET, Newport.—Shop Premises to Let, with living accommodation, suitable for Chemist; will accept £100 premium for present lease, six years to complete, or would consider Partnership with Chemist; excellent opportunity. H. 1500, "South Wales Argus," Newport.

APPRENTICESHIP.

APPRENTICE.—Gentleman wishes to Apprentice his son (passed Matriculation) to a firm of high-class Chemists; West End preferred; age 17½ years; knowledge of French and German; particulars. J. H. Smith, 61 Stroud Green Road, London, N.4.

APPRENTICESHIP sought for Youth, age 15½ years; keen, courteous and intelligent. Apply to Meinel, 45 Hallam Street, W.1.

SITUATIONS OPEN.

RETAIL.

[HOME.]

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

BRIGHTON.—Wanted for end of August, young qualified unmarried male Assistant for high-class Retail and Dispensing business. Please give full particulars in first letter and enclose photo. Parris & Greening, 105 Church Road, Hove.

BRISTOL.—Young qualified Assistant required; good Salesman and Window-dresser; permanency. State age, salary required, and references to 185/26, Office of this Paper.

BRISTOL.—Manager required immediately for quick Counter and N.H.I. business. State age, salary, references to 185/260, Office of this Paper.

LEEDS (District Near).—Qualified Assistant, 25 to 30, experienced in N.H.I. and Photography, for a middle-class business of a Private Company; comfortable position, with an opportunity to acquire an interest. Replies treated in strictest confidence. Give full particulars in first letter. 187/20, Office of this Paper.

LIVERPOOL.—Young qualified, with knowledge of Photography preferred (not essential); permanency; outdoors. 185/31, Office of this Paper.

LONDON.—Vacancy for lady with Minor qualification for General Retail and Dispensing business. Apply, stating experience, references, salary, and when at liberty. 186/1, Office of this Paper.

LONDON, S.W.—Wanted immediately, Qualified Manager, 25-35; living accommodation above shop if required. Also Unqualified Junior Assistant for good-class business. Apply, stating age, experience and salary required, 187/4, Office of this Paper.

LONDON.—Junior Assistant required at once for Middle-class Cash Business; good Counterwoman and Window-dresser essential; one used to N.H.I. Dispensing. Usual particulars and recent references. 187/22, Office of this Paper.

LONDON, E.—Qualified Assistant required; Counter, N.H.I. Dispensing and Photo. Full particulars as to salary, etc., 180/16, Office of this Paper.

LONDON, E.C.—Qualified Assistant, with knowledge of Photography, required. State age and details of experience. The Secretary, Shadforth Prescription Service, Ltd., 49 King William Street, E.C.4.

LONDON, N.—Young qualified Assistant, with good Dispensing experience; to live indoors preferred; comfortable home, reasonable hours, and good salary to suitable man. Saunders, 60 High Street, Highgate, N.6.

LONDON, N.—Competent unqualified Dispensing Assistant, used to quick Counter trade; age about 22; permanency and good wages for right man; no Sunday duty. Write, giving full particulars (photo), "Chemist," 180 Philip Lane, N.15.

LONDON, W.5.—Locum, qualified, lady preferred, for a fortnight, commencing August 30. Apply by letter, or if personally on Monday morning, August 23, to Bruce's, Ltd., 28 Broadway, Ealing.

LONDON (East End).—Qualified Locum wanted for two weeks from September 13; three hours Sunday duty; salary £5 ss. P.C.B. 35/34, Office of this Paper.

MANCHESTER.—Locum wanted, qualified, from September 8 until September 18, both dates inclusive. Reply "M.P.S.," 4 Grange Terrace, Wimslow Road, Rusholme, Manchester.

MANCHESTER.—Junior Assistant, about 20, required in September for high-class up-to-date city business; send full particulars, references, and salary required; must be a good Window-dresser. 88/920, Office of this Paper.

MANCHESTER.—Apprentice required for high-class city business; must be tall and of good appearance. 88/921, Office of this Paper.

MANCHESTER (within five miles).—Assistant, male, unqualified, well-trained neat worker, for Light Retail, Dispensing, Kodaks and Requisites; one seeking permanency preferred; references must bear the strictest investigation; will wait for really dependable, trustworthy man. Apply only by letter, enclosing photograph. R. Beck, Chemist, 394 Liverpool Road, Patricroft, Manchester.

MANCHESTER DISTRICT.—Qualified wanted, used to N.H.I. Dispensing and general Counter work; working-class district; state full particulars. 185/20, Office of this Paper.

QUEEN'S PARK.—Qualified Branch Manager required; young married man preferred; rooms provided; salary and commission given. Apply "Pratt Bros.," 94 Canterbury Road, West Kilburn.

WORKSHIRE.—Qualified Manager or Qualified Assistant, able to manage, wanted as early as possible for middle-class business; permanency; comfortable berth for right man; outdoors. Apply, stating age, experience, salary required, etc., to 186/14, Office of this Paper.

A GOOD all-round qualified or unqualified Assistant required as soon as possible (outdoors); permanent; give age, height, full experience, and salary required. F. J. Sandberg, 22 Regent's Parade, North Finchley, N.12, Middlesex.

A QUALIFIED and gentlemanly Assistant; must be well recommended as a quick and accurate Dispenser; no N.H.I.; usual hours and 5 hours Sunday duty fortnightly. Write remuneration expected and full details. Howard Schollar, Tennant's Pharmacy, 29 Sussex Place, S.W.7.

A ASSISTANT (outdoor) wanted early in September; a reliable man for good-class business, with knowledge of Photography. Apply, with photo, stating age, salary and usual particulars, Thos. Evans, Chemist, East Putney, London, S.W.15.

A ASSISTANT, unqualified, required (Brixton district) for busy good-class Retail Business; experienced Salesman. Photography, up-to-date Window Dresser. Full particulars to Parkes Chemists Ltd., 65 Harwood Street, Chalk Farm, N.W.1.

AT once; Unqualified; about 25-30; used to a good-class business, well up in Dispensing and Photography. State full particulars in first letter. Chater, Chemists, Watford.

CAPABLE, gentlemanly Assistant, unqualified, required for good-class Retail and Dispensing business in S.W. district; age about 28; vacancy September 20. Particulars of age, height, experience, and salary desired to 184/35, Office of this Paper.

COMPETENT Qualified Dispenser for high-class business, of good appearance and address and accustomed to quick and accurate work; age 27 to 30 years; permanency. Please give full particulars, experience and salary required in first letter. Davies, John & Aspell, Bath.

DISPENSER wanted, not essentially qualified, but experienced; permanency for suitable man. Apply Dr. Thorntou, 573 Romford Road, Forest Gate.

EXPERIENCED and reliable Assistant required for Dispensing and Counter work, commencing September 6. Lengden & Son, 337 High Street, Cheltenham.

GOOD, all-round Junior Assistant required from September 13 for our Haywards Heath establishment; age 20 to 25; unqualified; outdoors. State age, salary, height, and experience; enclose photo if possible. W. H. Dixon & Sons, Ltd., High Street, East Grinstead.

JUNIOR Assistant, gentlemanly and of good education, for September 13; high-class Toilet and Dispensing business; must be capable Dispenser and have modern business ideas. Letters only. Full particulars and salary required (outdoors) to Ashton, Chemist, Lapwing Lane, Didsbury, Manchester.

JUNIOR Assistant, unqualified, outdoors, required principally for Counter, Window-dressing and Stock. Apply, with full particulars, to Walshe's Pharmacy, 524 Romford Road, Forest Gate, E.7.

JUNIOR Assistant.—Body's. Pharmacies, Southend-on-Sea, require young competent Dispenser possessing good general knowledge, Counter and Photographics. A progressive and genial position assured to suitable applicant. State experience, age, salary required (outdoors), when disengaged, and send recent photograph to the Principal, Body's Pharmacies, Southend-on-Sea.

JUNIOR Assistant, country town, S. Kent, unqualified, for good-class business; Retail, Dispensing, Photo; two kept, stating salary, when disengaged, age, experience, photo, 186/28, Office of this Paper.

JUNIOR Assistant, unqualified, required for good-class Retail business; full knowledge of Photography and up-to-date window-dressing. Full particulars to 88/931, Office of this Paper.

ADY as supply from August 26 till September 5 inclusive, unqualified, with Retail Counter experience; in or outdoors apply. Apply 202 York Road, Battersea, S.W.11.

ADY Dispenser-Book-keeper, able to assist at Counter occasionally; Hall qualification preferred; typist desirable; moderate hours. Apply, with full particulars as to age, height, experience, references, and salary desired (outdoors), Wiggin & Co., Chemists, Ipswich.

OCUM required for Drug Store, must thoroughly know trade and Photography, from August 30 to September 11. Apply letter, stating wages, age and experience, to G. O. Spencer, Station Approach, Bellingham, S.E.6.

OCUM, qualified, male, for three weeks, from September 6, for Dispensing and Photographic business. Send full particulars and references. Swale, Chemist, Ilkley, Yorks.

OCUM, qualified, August 23 to 28 inclusive; good-class business. Leslie Martyn, Ltd., Dalston Lane. Please phone 0346.

OCUM wanted for August 27 to September 2 inclusive, or dates near. Piper, Chemist, 642 Stanforth Road, Darnall, Sheffield.

MANAGER, qualified, wanted for branch shop in Birmingham suburb; Retail and N.H.I.; modern house, with good living accommodation on premises. State salary required, when disengaged, age, height, married or single, etc., and give references, enclose photo if possible (will be returned) to 188/2, Office of this Paper.

MANAGER required (London district) for good-class Retail and Dispensing business; up-to-date Window-dresser, Photography; scope; prospects. Full particulars to 88/930, Office of this Paper.

MANAGER required for branch; quick cash, N.H.I. and Photography; age 25-30 preferred; good prospects for suitable man. 88/927, Office of this Paper.

PERMANENCY.—Junior Assistant wanted, under 25, single; good Window-dresser; must have served apprenticeship and experience with good-class firms. References, photo if possible; state salary required. Hall, Skegness.

QUALIFIED Chemist wanted shortly; Welsh speaking; age not over 45; single; abstainer; light business; market town; altho; no responsibility; easy hours; half-day weekly; no Sunday duty. Apply, stating references, salary and photo if possible; permanency to the right man. Apply 88/925, Office of this Paper.

QUALIFIED Assistant or Branch Manager for Retail Pharmacy with Photographic and N.H.I. The vacancy is for gentleman with good experience at Counter, Window-dressing, etc. Please state age, usual particulars, and recent photo (if convenient) to C. A. Stokes, M.P.S., Chemist, 34 Lower Castle Street, Bristol.

QUALIFIED (male) Assistant for Counter and N.H.I. work; quick, accurate and well recommended. State salary required, age and usual particulars to W. Tate, 37 Roman Road, London, E.3.

QUALIFIED Manager, with knowledge of Optics, required; outdoors. Reply, stating experience, salary required and references, to Gelston, 10 Winchester Street, Basingstoke, Hants.

QUALIFIED Male Assistant (or experienced unqualified) required shortly; must be good, reliable Dispenser and used to quick N.H.I. work. State salary (outdoors), age and usual particulars. Wood, 351 High Street, West Bromwich.

QUALIFIED Manager, young, for small branch shop; married for preference; house attached. Age, height and usual particulars, with salary expected; photo if possible. Curtis, 38 Station Street, Swinton, Rotherham, Yorks.

QUALIFIED Assistant required, London, S.W.; middle-class business; accurate Dispenser, good Counter hand, knowledge of Photography. Please state experience, salary required, age, and give addresses of references, also state when disengaged. 87/30, Office of this Paper.

QUALIFIED Manager, about 30, for branch in S.W. London, middle-class Retail with N.H.I. and Photographic; good prospects for capable man not afraid of work; commence £6 weekly and commission. Please state age, height, details of experience, and when at liberty; photo if convenient. 188/15, Office of this Paper.

REQUIRED immediately, experienced Assistant. State full particulars first letter. Badgett, Chemist, Clarence Place, Newport, Mon.

REQUIRED immediately, for three months, Part-time Qualified Dispenser for the Ditchling Road Branch of the Brighton and Hove Dispensary; hours of work, three mornings a week, 10-12, six evenings, 5-7; no Sunday duty. State qualification, experience, salary required, when at liberty and enclose copies of two recent testimonials to Assistant Secretary, 113 Queen's Road, Brighton.

WANTED at once, qualified Assistant; suit lady; easy hours; no Sunday duty; for small country town, Somerset. Reply, stating wages and when at liberty, 185/21, Office of this Paper.

WANTED, Assistant for mixed country business. State age, salary, etc., to Scott, Chemist, Sandy, Beds.

WANTED, good Junior Assistant (outdoors), used to good-class business and of gentlemanly appearance. Apply, with full particulars, Steele & Marsh, Chemists, 6 Milson Street, Bath.

WANTED at once, Qualified Junior for Village Business in Midlands; comfortable berth. 168/17, Office of this Paper.

WHOLESALE.

6s. for 40 words or less; 6d. for every additional 10 words or less, prepaid.

The ADVERTISER may if preferred have replies addressed to this Office, and forwarded on payment of an additional charge of 1/-.

ASSISTANT for Tablet Making; preference given to one with experience in granulating. Apply "Worker," 88/929, Office of this Paper.

PROGRESSIVE House requires Representatives to sell "non-combine" Toilet Soaps, Toilet Preparations, Perfumery, Straw Hat Dyes, Packed Drugs on liberal commission basis; very competitive prices; exclusive territory given. Send full details (in confidence) to 185/30, Office of this Paper.

PROGRESSIVE firm of London Manufacturing Chemists, with established connection in Lancashire and Scotland, require a thoroughly competent Representative (preferably qualified) for each district; salary, commission and expenses. State full particulars first letter; own car an advantage. 185/13, Office of this Paper.

QUALIFIED Assistant wanted for Wet Counter by provincial Wholesale Druggists; experienced D.D.A. Records and general routine. Write, with full particulars, 187/21, Office of this Paper.

REPRESENTATIVE (lady or gentleman) required with connection amongst Chemists, Drug Stores, and High-class Hairdressing establishments. Braham & Manrer, Ltd., 12 Holborn Viaduct, E.C.1.

REPRESENTATIVES required by well-known firm to carry a unique Toilet Cream on commission only; must be active, energetic, and with live connection; liberal terms and good sales backing; replies should state territory covered and give references. E. T. Pearson & Co., Ltd., 35 Gordon Square, London, W.C.1.

TOWN Representative wanted, Qualified, to call on Chemists, Medical Men, and Institutions, by provincial Wholesale Druggists. Write, with full particulars and photo if possible, to 187/210, Office of this Paper.

YOUNG Lady required by Wholesale, Patent and Sundry House; able to take orders over telephone. State experience and salary required. P.C.B., 36/26, Office of this Paper.

[COLONIAL, INDIAN AND FOREIGN.]

SHANGHAI.—Qualified Assistant, under 25 preferred, in old-established English Chemists in Shanghai; high-class general experience essential; salary 300 dollars (Mex) per month, with annual increases; free second class passage out and home; three or four years' agreement at assistant's option. Full particulars as to experience, etc., by letter, to Dakin Brothers, Ltd., 84 Middlesex Street, E.1.

SITUATIONS WANTED.

RETAIL.

[HOME.]

2s. for 18 words or less; 6d. for every additional 10 words or less, prepaid.

A CAPABLE qualified man, fully experienced, seeks re-engagement; disengaged; permanency or Locum. "Chemist," 85 Lancaster Road, Leytonstone, E.11.

A RELIABLE Assistant; Locum; temporary or permanency; all-round experience, Dispensing, Prescribing, Veterinary, and Salesmanship; excellent references; 36; tall; unqualified; capable of taking entire charge; anywhere, between here and home (London). "Locum," c/o Messrs. Bolton & Huzzard, Pharmacists, Gainsborough.

A N unqualified gentleman (22) requires berth in Liverpool, Manchester, or on North Wales Coast; accustomed to high-class all-round pharmacy work; keen Salesman and Window-dresser; considered intelligent; vacant October 4. Apply 185/37, Office of this Paper.

A N unqualified lady; 10 years' experience, best Dispensing and Counter, London and suburban; disengaged. 29 District Road, Wembley.

A S Manager or Assistant; qualified; South-West of England preferred; excellent experience and references; disengaged after notice. 184/26, Office of this Paper.

A S Locum; excellent references and experience, moderate terms. "Locum," c/o Mr. Kinghorn, Wells, Norfolk.

A SSISTANT; Dispenser, Counter, Photography; active; reliable; mid-aged; unqualified; permanency; single. "Statim," c/o Miss Picksley, Wesley Street, Kirton Lindsey, Lincs.

A SSISTANT; experienced; unqualified; at liberty immediately if desired. "Relief," c/o Reck, Chemist, Peel Green, Manchester.

A SSISTANT, unqualified, 24, seeks permanency; over 7 years' sound experience, Dispensing, Counter, etc.; has had Minor Course; reliable worker. 5 Pilton Avenue, Horfield, Bristol.

A SSISTANT; unqualified; good experience, Dispensing, Counter, Photographic (also practical) and Window-dressing; London or Home Counties preferred. 198 Stockwell Road, S.W.9.

A SSISTANT seeks position as Junior in good-class Dispensing and Light Retail Pharmacy; permanency required; Liverpool, Manchester or North Wales districts preferred; good references; salary £2 10s. to £2 15s.; passed Minor, except Pharmacy; willing; conscientious. Griffiths, Cyprus House, Squires Walk, Wednesbury, Staffs.

A SSISTANT; unqualified; disengaged; middle-aged; all-round experience; moderate wage; abstainer. W. J. Jewell, 3 Hollydale Road, Peckham, S.E.15.

A SSISTANT; qualified; 23; good all-round experience, including Photographic; Square trained; high-class situation preferred; managing at present. 187/3, Office of this Paper.

A SSISTANT or Manager; qualified; best experience; London or 20-mile radius; Locum work not objected to. P.C.B. 36/25, Office of this Paper.

C APABLE lady desires change end September; London, W. or S.W. preferred; can fill position of trust; Dispensing, Counter, Book-keeping; general business management; unregistered. 188/6, Office of this Paper.

C OMPETENT unqualified Assistant, 40, desires part-time Locum or permanency; at liberty September 6. Lee, 131 Greenford Avenue, Hanwell, W.7.

D ISENGAGED Doctor's Dispenser; male; state terms. "Medicus," 28 Amos Hill, Penygraig, Rhondda.

D ISENGAGED September 8; male; Pharmacist; experienced; Locum or permanency. "Pharmacist," 67 Western Road, Ealing, W.5.

D ISENGAGED mid-September; qualified Manager desiring permanency; good appearance; highest references; London preferred; or would travel. 187/24, Office of this Paper.

D ISPENSER (Hall), experienced, Qualified lady, seeks post preferably in London; permanency immediately; Locum from mid-September. Miss Flint, 38 Woodland Gardens, Muswell Hill, London, N.10.

D ISPENSER to Doctor or firm seeks situation; experience with good references. Graham, Claremont, Maidenhead.

D ISPENSER, lady (Hall), desires change; 9 years' experience Institutional and N.H.I.; Home Counties preferred. Ap 185/27, Office of this Paper.

D ISPENSING; whole or part time; no counter; excellent references. "Beta," 9 Rostrevor Road, S.W.19.

E XPERIENCED Unregistered Man seeks berth where scrupulously clean and methodical work will be appreciated; married; middle-aged; disengaged in a month. 188/17, Office of this Paper.

G ENTLEMAN having recently disposed of own business prepared to take Locum Tenens duties; any period from mid September. "E. F. C.," c/o Bass & Wilford, Ltd., Parliament Street, Nottingham.

I NTELLIGENT man, 22, desires situation with Chemist in London; no previous experience; will make himself useful; premium paid. 184/24, Office of this Paper.

J UNIOR Assistant, 21 years, seeks position in good-class Dispensing and brisk Retail Pharmacy; Liverpool or Manchester preferred; salary £2 15s.-£3; free first week in September. Davies, James Place, Bagillt, Flintshire.

J UNIOR, lady, 19, desires post in Birmingham district; Dispensing, N.H.I., Counter and Photography; aim, Midland Examination. Miss Radford, 40 Gillott Road, Birmingham.

J UNIOR Assistant; good Dispensing, Photographic and Counter experience; disengaged. G. Ramdin, 41 Western Square, W.6.

J UNIOR Assistant, unqualified, requires post, Locum or permanency; Sheffield or district; good references. Aldous, 2 Gleadless Road, Sheffield.

J UNIOR, 19, tall, desires post; London preferred. Hanford, Cross Hands, Llanelly.

L ADY Dispenser (Hall) requires post; 8 years' experience with Doctors and in Hospital; knowledge Shorthand, Typing, good references. 178/23, Office of this Paper.

L ADY desires post in Toilet Department; 7 years' experience; will give three months' service free. Miss A. Garner, Vishwell Road, Canton, Cardiff.

L ADY Dispenser (Hall) requires permanency anywhere with Doctor or Hospital; London preferred; excellent experience. "Tranmere," Mill Hill, Cowes, Isle of Wight.

L ADY Dispenser (Hall) requires permanency with Doctor or Hospital; London preferred; 10 years' experience. M. O'Sullivan, 70 Craster Road, Brixton Hill, London, S.W.

L ADY (25) requires post; Dispensing Retail; exceptional experience in high-class Toilet Trade. Apply 187/14, Office of this Paper.

L IVERPOOL.—Lady, 19, desires position, Improver; experience the greater consideration. "Alain," c/o John Thompson, Ltd., Duke Street, Liverpool.

L OCUM.—M. Smith, 96 Humberstone Drive, Leicester, permanent address; over 30 years' qualified experience; high credentials; reliable service; disengaged until September 25.

L OCUM; abstainer; take entire charge; terms moderate; disengaged September 18 onward. "Pharmacist," c/o Evans, Lescher Webb, Ltd., Chemists, Liverpool.

L OCUM; qualified; well experienced; free middle September onward. William Jackson, 79 Albion Road, London, N.

L OCUM; qualified; vacant dates, August 30 to September 18 and September 13 to September 18. Breckon, 8 Little Gardens, Low Fell, Gateshead.

L OCUM; at liberty; just out of own business; middle-aged; life abstainer; good references; sound experience in departments; town or country. Carte, The Pharmacy, Rodley, Leeds.

L OCUM; City, West-End and Hospital experience; reliable; reasonable; best references; disengaged. "Abbott," Pevensey Road, Eastbourne, Sussex.

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L OCUM; qualified; good experience; reliable; London area; September 1 to 14. Starmer, 3 Pelham Street, South Kensington.

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MANAGER; qualified; tall; 35; experienced; knowledge of Optics; excellent references; present situation five years; North London preferred; free in September. Salary and particulars, 185/6, Office of this Paper.

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MANAGER, 36, disengaged, 20 years' all-round experience, well recommended, requires progressive post with go-ahead man. "Quercus," 187/58, Office of this Paper.

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